Product Support Guide
D143/D144

Introduction

Model Type	Color MFP
Launch Date	2/20/2012
S/N Configuration	W51yfmxxxxx W54yfmxxxxx
Product Code	D143/D144

Brand/Model Name

Product Code	Lanier	Ricoh	Savin
D143	MP C4502	Aficio MP C4502	MP C4502
D144	MP C5502	Aficio MP C5502	MP C5502

Product Concept

The D143/D144 is the replacement for the D088/D089 series.
The new D143/D144 will be launched to enhance our competitiveness with the highly strengthened GW+ controller specs, expanded color space, shortened warm up time and improved ECO spec.
RICOH decided to equip D143/D144 with our most advanced controller, GW+, in order to compete against others. D143/D144 will be using the new "SPR-F" toner, which will certainly improve the image quality. Moreover, the warm up/recovery time will be reduced and the total ECO spec including TEC value is planned to be #1. Lastly, D143/D144 will be adopting the new product design concept, I-Style (Intelligent Style), which will attract customer with its design and suite to any office environment.

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Product Support Guide
D143/D144

Order Number
Main Frame

Item	Model Name	EDP Code	Notes
Lanier Ricoh Savin	Aficio MP C4502	416072	Standard Mainframe Configuration Printer Scanner
Lanier Ricoh Savin	Aficio MP C5502	416076	Standard Mainframe Configuration Printer Scanner
Lanier Ricoh Savin	Aficio MP C4502G	416073	Printer Scanner Government Version
Lanier Ricoh Savin	Aficio MP C5502G	416078	Printer Scanner Government Version
Lanier Ricoh Savin	Aficio MP C4502A	416075	Printer Scanner Single Pass DF Version
Lanier Ricoh Savin	Aficio MP C5502A	416077	Printer Scanner Single Pass DF Version

Note: Items in yellow are scheduled to launch 6/2012

Options

Item	Description	Product Code	EDP Code	Common / Unique
PostScript3 Unit Type C5502	**PostScript3 Unit Type C5502**	**D645-11**	**415998**	**C**
Fax Option Type C5502	**Fax Option Type C5502**	**D645-19**	**415991**	**C**
1-Bin Tray BN3100	**1-Bin Tray BN3100**	**D632**	**415986**	**C**
Side Tray Type C5502	**Side Tray Type C5502**	**D635**	**415989**	**C**
PictBridge	**Camera Direct Print Card Type J**	**D645-15**	**416006**	**C**
Paper Feed Unit (550 x 2)	**Paper Feed Unit PB3130 (550X2)**	**D580**	**415793**	**C**
1000 x 2LCT	**LCIT PB3140 Large Capacity Cassette**	**D581**	**415795**	**C**
Side LCT	**LCIT RT3020**	**D631**	**415984**	**C**

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Envelope Feeder	Envelope Feeder EF3020	D638	416272	C
Card Reader Bracket	Card Reader Bracket Type 3352	D593-61	415814	C
IPDS	IPDS Unit Type 5502	D645-07	416003	C
File Format Converter	File Format Converter Type E	D377-04	414007	C
Internal Shift Tray	Internal Shift Sort Tray (SH3060)	D633	415987	C
Fax Connection Unit	Fax Connection Unit Type B	D645-19	416022	C
G3 Unit	G3 Interface Unit Type C5002	D643-11	415996	C
Platen Cover	Platen Cover Type 3352	D593	415809	C
Bridge Unit	Bridge Unit BU3060	D386	415988	C
Punch Kit for US 2/3 hole	Punch Unit Type 3260 NA	B702	412209	C
1,000 Sheet Finisher	Finisher SR3090	D588	415804	C
2000 Sheets Booklet Finisher	Finisher SR3110 Booklet Finisher	D637	416007	C
3000 Sheets Finisher	Finisher SR3120	D636	416008	C
Wireless LAN	IEEE802.11a/g Unit (Wireless Interface) Type J	D377-01	414008	C
Copy Data Security Unit	Copy Data Security Unit Type G	D640	416391	C
Gigabit Ethernet	Gigabit Ethernet Board Type B	D377-21	414204	C
IEEE1284	IEEE1284 Interface Board (Parallel)Type A	B679-17	411699	C
Optional Counter Interface Unit	Optional Counter Interface Unit Type A	B870-11	413012	C
Key Counter Bracket	Key Counter Bracket Type H	A674-05	412552	C
Hand Set	Handset Type 5502	D645-27	416324	U

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Fax 32MB SAF Memory Unit Type B	**Fax 32MB SAF Memory Unit Type B**	**G578**	**001342MIU**	**C**
FAC52 Cabinet	**FAC52 Cabinet**	**5K6123**	**416337**	**C**
Browser Unit	**Browser Unit Type F**	**D645-17**	**416002**	**U**
ADF Handle	**ADF Handle Type C**	**D593**	**416213**	**C**
Bluetooth	**Bluetooth (USB)**	**D566**	**415818**	**C**
NetWare Printing	**SD Card for NetWare Printing Type H**	**D645-23**	**416001**	**C**
HotSpot MFP Option Type E	**HotSpot MFP Option Type E**	**TBA**	**TBA**	

ARDF

Destination	Name	Product Code	EDP	Serial #
Generic	ARDF DF3070	D630	416021	TBA

Envelope Feeder

Destination	Name	Product Code	EDP	Serial #
Generic	Envelope Feeder EF3020	D638	416272	W78yfmxxxx

2-Tray Paper Feed Unit

Destination	Name	Product Code	EDP	Serial #
Generic	Paper Feed Unit PB3130	D580	415793	W57yfmxxxxx

LCT (2000-Sheet)

Destination	Name	Product Code	EDP	Serial #
North America/ Latin America	LCIT PB3140	D581	415795	W58yfmxxxxx

LCT (1200-Sheet)

Destination	Name	Product Code	EDP	Serial #
North America/ Latin America	LCIT RT3020	D631	415984	W61yfmxxxxx

Product Support Guide
D143/D144

1 Bin Tray Unit

Destination	Name	Product Code	EDP	Serial #
Generic	BN 3100	D632	415986	W62yfmxxxxx

Shift Tray Unit

Destination	Name	Product Code	EDP	Serial #
Generic	SH3060	D633	415987	W89yfmxxxxx

Side Tray

Destination	Name	Product Code	EDP	Serial #
Generic	Side Tray Type C5502	D635	415989	W64yfmxxxxx

1000-Sheet Finisher

Destination	Name	Product Code	EDP	Serial #
North America/ Latin America/ Europe/Asia/ Taiwan/Australia/L atin America	SR3090	D588	415804	W75yfmxxxxx

2000-Sheet Booklet Finisher

Destination	Name	Product Code	EDP	Serial #
Generic	Booklet Finisher SR3110	D637	416007	TBA

3000-Sheet Finisher

Destination	Name	Product Code	EDP	Serial #
Generic	Finisher SR 3120	D636	416008	TBA

Bridge Unit

Destination	Name	Product Code	EDP	Serial #
Generic	Bridge Unit BU3060	D634	415988	W63yfmxxxxx

Fax Unit

Destination	Name	Product Code	EDP	Serial #
North America/ Latin America/	Fax Option Type C5502	D643-01	415991	W65yfmxxxxx

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Product Support Guide
D143/D144

Supplies/Yields

Item	Name	Order Code	Target Yield
Ricoh / Savin / Lanier			
Toner Black	Print Cartridge Black Type MP C4502, MP C5502	841679	31,000prints/bottle *1
Toner Yellow	Print Cartridge Yellow Type MP C4502, MP C5502	841680	22,500prints/bottle
Toner Magenta	Print Cartridge Magenta Type MP C4502, MP C5502	841681	22,500prints/bottle
Toner Cyan	Print Cartridge Cyan Type MP C4502, MP C5502	841682	22,500prints/bottle
Developer	BK	D1449640	300k
	C	D1449660	240k
	M	D1449670	240k
	Y	D1449680	240K
Staple Set Cartridge for SR3110/3120/3090	Staple Type K	410801	5,000shots/staple
Staple Refill Cartridge for SR3110/3120/3090	Refill Staple Type K	410802	5,000shots/staple
Staple Set Cartridge for SR3110 (Saddle Stitch)	Staple Type L	411240	2,000shots/staple
Staple Refill Cartridge for SR3110 (Saddle Stitch)	Refill Staple Type L	411241	2,000shots/staple

***1: If EFI controller option is attached, the targeted yield is 29,000prints/bottle Supply Yield Condition:**

1) ISO/IEC19752 is used to measure the above toner yield.
2) The condition is standard temperature and humidity.
3) This yield number may change depending on the circumstances and printing conditions.
4) Starter AIO (included in a carton box of main unit): 6K pages / Cartridge.

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Option Compatibility

Category	Item	Product Name	You Must Install	You Cannot Install
Original Feeding	Platen Cover	Platen Cover Type 3352	-	ARDF
	ARDF	ARDF DF3070	-	Platen Cover, Single Pass DF model
	ADF Handle	ADF Handle Type C	ARDF(only DF3070)	Single Pass DF model
Paper Feeding	2 tray Paper Bank	Paper Feed Unit PB3130	-	LCT
	LCT	LCIT PB3140	-	2 tray Paper Bank
	Side LCT	LCIT RT3020	2 tray Paper Bank or LCT	-
	Envelope Feeder	Envelope Feeder EF3020	-	-
Finishing	1 Bin Tray	1 Bin Tray BN 3100	-	-
	Internal Shift Tray	Internal Shift Tray SH3060	-	2000 Sheets Booklet Finisher, 3000 Sheets Finisher, 1000 Sheets Finisher, Bridge Unit, Side Tray
	Side Tray	Side Tray Type C5502		2000 Sheets Booklet Finisher, 3000 Sheets Finisher, 1000 Sheets Finisher, Bridge Unit, Shift Tray
	1000 Sheets Finisher	Finisher SR3090	Bridge Unit and Paper Bank or LCT	2000 Sheets Booklet Finisher, 3000 Sheets Finisher, Shift Tray, Side Tray
	3000 Sheets Finisher	Finisher SR3120	Bridge Unit and Paper Bank or LCT	2000 Sheets Booklet Finisher, 1000 Sheets Finisher, Shift Tray, Side Tray
	2000 Sheets Booklet Finisher	Booklet Finisher SR3110	Bridge Unit and Paper Bank or LCT	1000 Sheets Finisher, 3000 Sheets Finisher, Shift Tray, Side Tray

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	Punch Unit	Punch Kit PU3030NA/EU/SC	2000 Sheets Booklet Finisher or 3000 Sheets Finisher	-
	Bridge Unit	Bridge Unit BU3060	2000 Sheets Booklet Finisher or 1000 Sheets Finisher or 3000 Sheets Finisher	Shift Tray, Side Tray
Fax	Fax Option	Fax Option Type C5502	-	-
	G3 Unit	G3 Interface Unit Type C5502	Fax Option	-
	FAX Connection	Fax Connection Unit Type B	Fax Option (for Center machine)	-
	SAF Memory	Memory Unit Type B	Fax Option	-
	Handset(Only for RAC)	Hand Set Type 3352	Fax Option	-
	FAX Stamp	Marker Type 30	Fax Option	-
Printer Option	PostScript3	Postscript3 Unit Type C5502	-	EFI Controller
	PictBridge	Camera Direct Print Card Type J	-	EFI Controller
	IPDS	IPDS Unit Type C5502	-	EFI Controller
Network Option	Wireless LAN Interface	IEEE 802.11a/g Interface Unit Type J	-	Bluetooth, IEEE 1284, EFI Controller
	Wireless LAN Interface	IEEE 802.11g Interface Unit Type K	-	Bluetooth, IEEE 1284,EFI Controller
	IEEE 1284 Interface	IEEE 1284 Interface Board Type A	-	Wireless LAN, EFI Controller
	Gigabit Ethernet	Gigabit Ethernet Type B	-	EFI Controller
	Bluetooth	Bluetooth Interface Unit Type D	-	Wireless LAN,
Security	Copy Guard Security	Copy Data Security Unit Type F	-	-
Others	Browser Unit	Browser Unit Type F	-	-
	Netware	SD card for NetWare printing Type H		EFI Controller
	Optional Counter Interface	Optional Counter Interface Unit Type A	-	EFI Controller
	Key Counter Bracket	Key Counter Bracket Type H	-	EFI Controller
	File Format Converter	File Format Converter Type E	-	-

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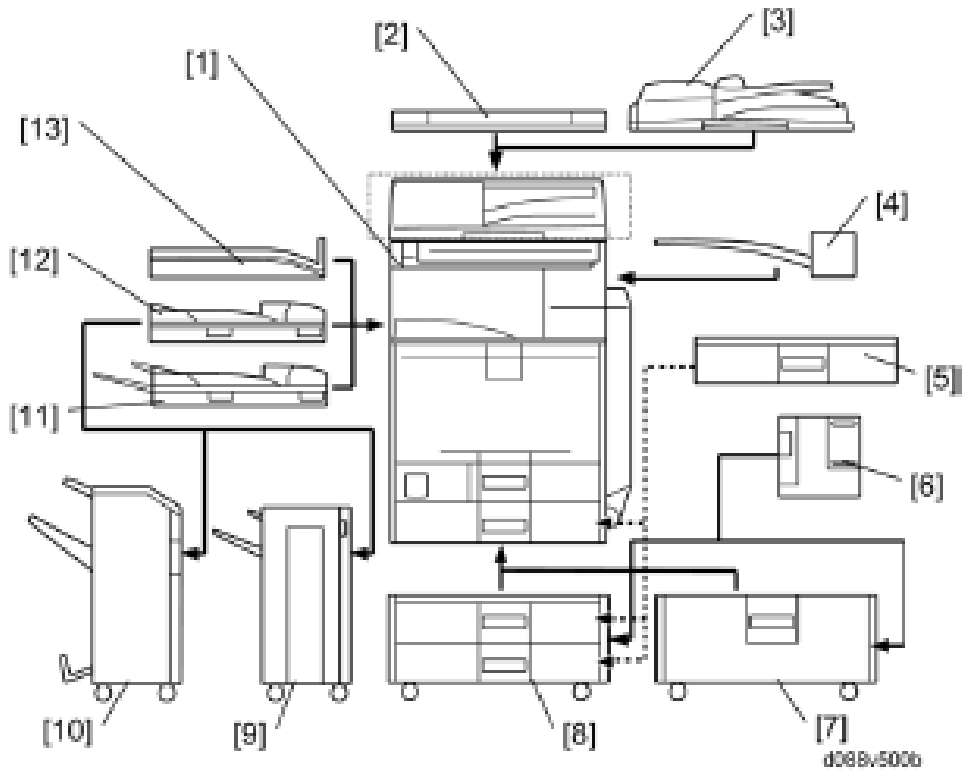
	Card Reader Bracket	Card Reader Bracket Type 3352	-	
	Scanner Accessibility Option	Scanner Accessibility Option Type C5502	-	Single Pass DF model

Branding Information

Branding is required as the machines are shipped as a generic version.
Ricoh version machines: You must attach the model label (provided) to the front cover.
Savin/Lanier: You must attach the model label (provided) to the front cover and set the Plug and Play name with SP 5-907.

Configuration

Main Frame Configuration



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Item	Machine code	Call Out	Remarks
Mainframe	D143/D144	1	Single pass ADF model has ADF as standard
Platen Cover	D593	2	One from the two for all models except the Single Pass ADF model
ARDF	D630	3	
2000(Booklet) / 3000 Sheet Finishers	D637 / D636	4	One from 9 and 10, requires 11 and one from 7 and 8
Punch Unit 3/2/Holes	B702	-	Requires 10
Punch Unit 2/3/Holes	D570	-	Requires 10
1000 Sheet Finisher	D588	9	One from 9 and 10 requires 11 and one from 7 and 8
2000 Sheet LCT	D581	7	One from the two
2 Tray Paper Feed Unit	D580	8	
1200 Sheet LCT	D631	6	Requires 7 or 8
Envelope Feeder	D638	5	Requires Tray 2 of the Mainframe or 8
1 Bin tray	D632	4	-
Bridge Unit	D634	12	One from the Three
Shift Tray	D633	13	
Side Tray	D635	11	
Scanner Accessibility Option	D647	-	-
Card Reader Bracket	D593 - 61	-	-
ADF Handle Type C	D593	-	This is for use when a person who uses a wheel chair will lift the ADF up or down
Optional Counter Interface Unit	B870	-	-
Key Counter Bracket	A674	-	-

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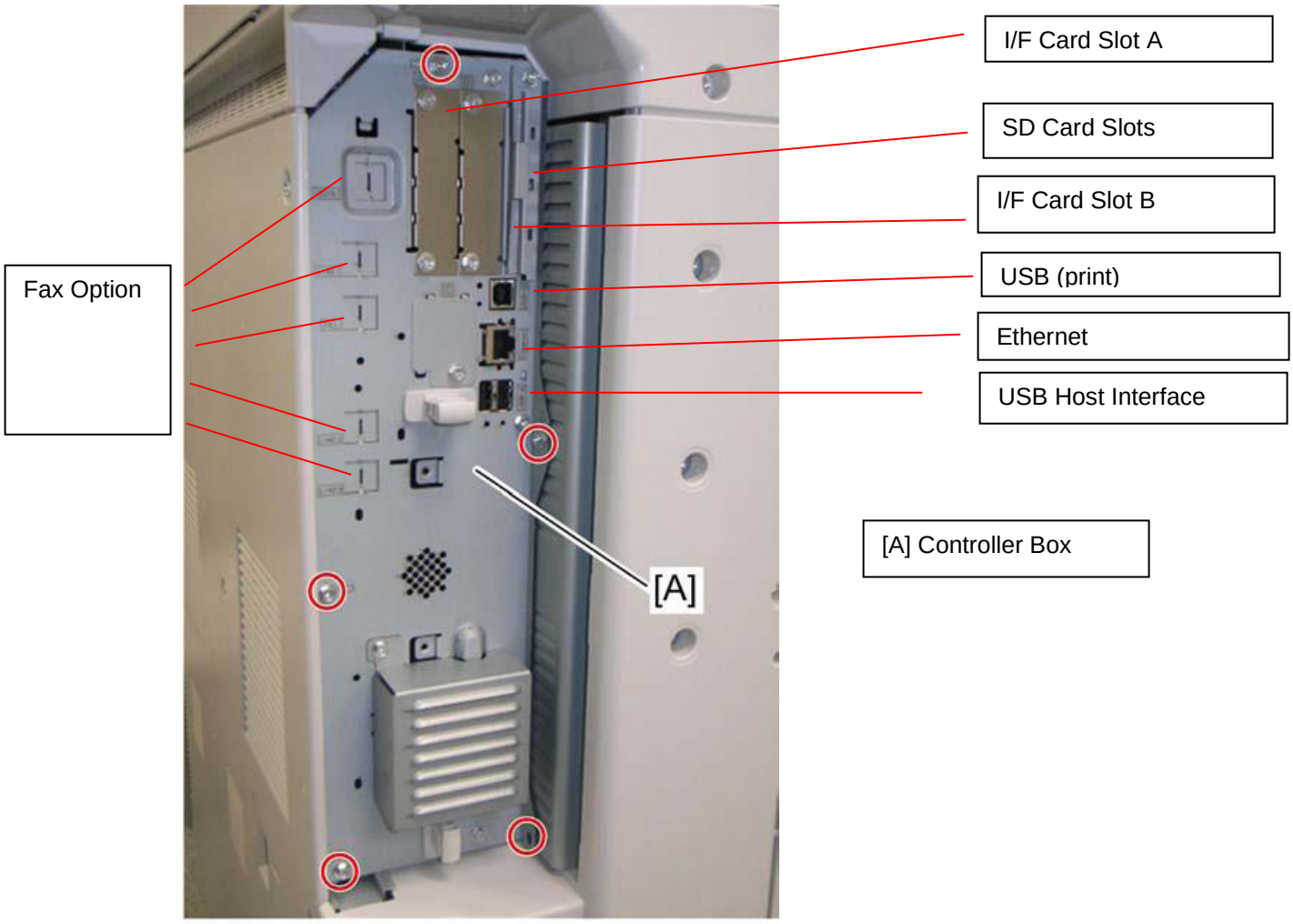
MFP Options

MFP Option Board Slot / SD Card Assignments



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Product Support Guide
D143/D144

Previous To Current Model Feature Comparison

	Mode		D088/D089	D143/D144
Printer Features	Sample Print		Yes	Yes
	Locked Print		Yes	Yes
	Hold Print		Yes	Yes
	Scheduled Print		No	Yes
	Stored Print		Yes	Yes
	Store and Print		Yes	Yes
	Black Over Print		Yes	Yes
	CLP Simulation		Yes	Yes
	PDF Direct Print		Yes	Yes
	PictBridge		Yes	Yes
	Mail to Print		Yes	Yes
	Classification Code		Yes	Yes
	Bonjour (Rendezvous) Support		Yes	Yes
	Windows Active Directory Support		Yes	Yes
	DDNS Support		Yes	Yes
	PCL resident font adoption		Yes	Yes
	Tray-Parameter Change from WebImageMonitor		Yes	Yes
	1200dpi Support		Yes	Yes
	Mobile Driver		Yes	Yes
	XPS Support		Yes	Yes
	WS Printer		Yes	Yes
	Wireless LAN interface option *1		Yes	Yes
	Media Direct Print (Print from USB/SD)		Yes	Yes
	Auto Job Promotion		No	Yes
	AirPrint*2		No	TBA
	*1 Not only IEEE802.11b, but also IEEE802.11a/g are supported.			

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	Mode		D088/D089	D143/D144
	*2 To announce that this model supports AirPrint function on external sales materials such as brochures, acquiring a certification from Apple is required. And also, this function is disabled until this model is certified by Apple.			
Scanner Features	Scan to USB/SD		Yes	Yes
	WS-Scanner		Yes	Yes
	Scan to E-mail		Yes	Yes
		E-mail message attached	Yes	Yes
		Subject attached	Yes	Yes
		SMTP Auth	Yes	Yes
		POP before SMTP	Yes	Yes
	Scan to SMB		Yes	Yes
	Scan to FTP		Yes	Yes
	Scan to URL		Yes	Yes
	Scan to NCP		Yes	Yes
	Scanned file naming		Yes	Yes
		Reference # Setting (ex. SCAN0001)	Yes	Yes
	Scan file type selection		Yes	Yes
		Single TIFF	Yes	Yes
		Single JPEG (Gray Scale)	Yes	Yes
		Single PDF	Yes	Yes
		Single High Compression PDF	Yes	Yes
		Multi page TIFF/PDF	Yes	Yes
		Multi page High Compression PDF	Yes	Yes
	LDAP Support		Yes	Yes
		E-mail Address search	Yes	Yes
		FAX address search	Yes	Yes

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	Mode		D088/D089	D143/D144
	Preview before transmission (TX Preview)		Yes	Yes
	PDF Encryption		Yes	Yes
	Drop out Color Send		Yes	Yes
	Twain Scan		Yes	Yes
	Universal Send (Simultaneous FAX & Scan)		Yes	Yes
	Document Clipper *1		No	No
	(*1) Data Processing / OCR Package			
FAX Features	Detection of misplaced document		Yes	Yes
	Double-check of destination address		Yes	Yes
	Direct SMTP		Yes	Yes
	IP Fax (T.38)		Yes	Yes
	Internet Fax (T.37)		Yes	Yes
	Forward to E-mail			
		Inbound fax (G3/Internet)	Yes	Yes
		G3 Fax Transmission result	Yes	Yes
		G3 LAN Fax Transmission result	Yes	Yes
		Internet fax sending result (to SMTP)	Yes	Yes
		Fax to e-mail result (to SMTP)	Yes	Yes
		IP Fax sending result	Yes	Yes
		Journal	Yes	Yes
		Fax from special sender	Yes	Yes

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	Mode		D088/D089	D143/D144
		Fax and forward designated receiver (SUB)	Yes	Yes
	Fax forward to folder		Yes	Yes
		with E-mail Notification	Yes	Yes
	Paperless fax (HDD received)		Yes	Yes
		with E-mail Notification	Yes	Yes
	Lan-fax with cover sheet editor		Yes	Yes
	LDAP Support			
		Fax address search	Yes	Yes
	Max G3 lines		3	3
	Universal Send (Simultaneous FAX & Scan)		Yes	Yes
	DS stored data sending		Yes	Yes
Security Features	HDD Data Overwrite Security*1		YES(std)	YES(std)
		Option Type A		
		Option Type B		
		Option Type C		
		Option Type D		
		Option Type F		
		Option Type H	v	
		Option Type I		
		ISO/IEC15408 Certification	T.B.A	T.B.A
	Authentication *2			
		Windows Authentication	YES	YES
		LDAP Authentication	YES	YES
			YES	YES
		Basic Authentication	YES	YES

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	Mode		D088/D089	D143/D144
		User Code Authentication	YES	YES
		802.1.x Wired Authentication	YES	YES
	Encryption			
		Address Book Encryption	YES	YES
		Authentication Pwd Encryption	YES	YES
		SSL communication	YES	YES
		S/MIME	YES	YES
		IPsec communication	YES	YES
		HDD Encryption (*1)	YES	YES
		Type A	v	
		Locked Print password Encryption	YES	YES
	Others			
		Network Protocol On/Off	YES	YES
		IP filtering (Access Control)	YES	YES
		Mask Type for Copying/Data Security for Copying *1	NO	YES
		Copy Data Security Unit Option (*1)	NO	YES
		Type A		
		Type C		
		Type E		
		Type F		v
	Printout User Trace *5		NO	NO
	Alteration Detection *5		NO	NO
	Revival Copy *5		NO	NO
	Upgraded Data Security for Copying		NO	NO

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	Mode		D088/D089	D143/D144
	Quota Setting/Account Limit		YES	YES
	Single Sign On		NO	NO
	SMTP over SSL		YES	YES
	Mandatory Security Information Print		NO	YES
	(*1) Option required for some models.			
	(*2) Please refer to "printer driver specification" for details of compatible PDL.			
	(*3) Applicable for Windows Authentication and LDAP Authentication.			
	(*4) To be provided as optional function package.			
	(*5) To be provided as Marking Package.			
UI Features	UI Customization		NO	YES
	My Operation Panel		NO	YES
	Remote Operation Panel		NO	NO
	MFP Full Browser		NO	YES
	Operation Manual on Operation Panel		NO	NO
	Workflow improvement with one-button		NO	YES
	External USB Keyboard		NO	YES
	QWERTZ Layout Keyboard		NO	YES
	AZERTY Layout		YES	YES

Subject to change without notice

	Mode		D088/D089	D143/D144
	Keyboard			
	(*1) Ad-C4.5 and Al-C1 have this feature with special customization.			
Accessibility Features	Easy Touch Screen		YES	YES
	Normal/Reverse Grip & Light drawing		YES	YES
	Scanner Separation		YES*1 (Optional)	YES*1 (Optional)
	Tilt Operation Panel		NO	YES
	Distinguishable LED		YES	YES
	Single Hand Operation		YES	YES
	Electronic Manual (CD manual)		YES	YES
	*AP-C, A-C or AL-C only			
Other Value Added Features	Hierarchy Document Management (Document Server)		No	No
	Import/Export of Preference Settings		NO	YES
	Information Screen (Eco-Friendly Indicator) NO YES			

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Installation

Installation Requirements

Temperature Range:	10° C to 32° C (50° F to 89.6° F)
Humidity Range:	15% to 80% RH
Ambient Illumination:	Less than 1,500 lux (do not expose to direct sunlight)
Ventilation:	3 times/hr/person
Ambient Dust:	Less than 0.075 mg/m^3 (2.0 x 10-6oz/yd^3)

Avoid areas exposed to sudden temperature changes:

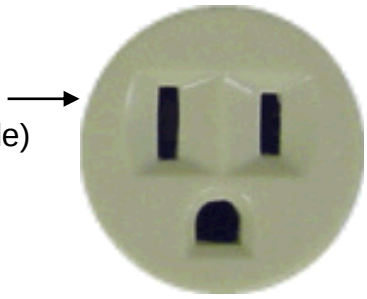
- Areas directly exposed to cool air from an air conditioner.
- Areas directly exposed to heat from a heater.

Do not place machine where it will be exposed to corrosive gas or vapor.
Do not install the machine at any location over 2,500m (8,200 ft.) above sea level.
Place the machine on a strong and level base. Inclination on any side should be no more than 5mm (0.2”)
Do not place the machine where it may be subject to strong vibrations.
Machine level

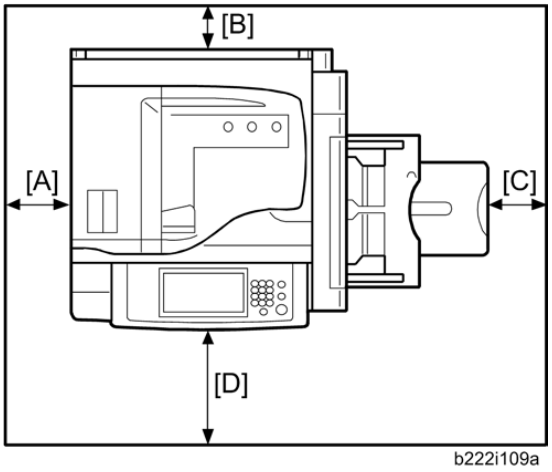
- Front to back: within 5mm (0.2”) of level
- Right to left: within 5mm (0.2”) of level

Power Requirements

Input voltage level: 110 - 120 V, 60Hz: 12A
Do not place anything on power cord.
The required wall outlet is a NEMA 5-15R (receptacle)



Space



A (Left)	Over 100 mm (3.9")
B (Rear)	Over 100 mm (3.9")
C (Right)	Over 550 mm (21.7")
D (Front)	Over 750 mm (29.5")

The recommended 750 mm (30”) front space is sufficient to allow the paper tray to be pulled out. Additional the front space is required to allow operators to stand at the front of the machine.

Foot Print

Dimensions (W x D x H): 22.8 x 28.98 x 41.9 (with 2-Tray Paper Bank and fall-prevention material) **Measurement Conditions: With bypass feed table closed**

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Power Consumption / Noise Emission

Power Consumption

Power Consumption			
Power Consumption may differ depending on the conditions and environment of the machine.	Max Power		
	Full Option Max Power		1,584 or less
	Operating Power	(Guaranteed value)	900
		(Nominal value)	Normal DF(D143:690.9/D144:781.4) SPDF(D143:694.1/D144:766.2)
	Ready Mode	(Guaranteed value)	240 or less
		(Nominal value)	Normal DF 101 SPDF 120
	Panel Off	(Guaranteed value)	-
		(Nominal value)	-
		Shift time(Default)	-
		Recovery	-
	Low Power	Power (Guaranteed value)	150 or less
		(Nominal value)	Normal DF 86 SPDF 98
		Shift time(Default)	-
		Recovery (Guaranteed value)	10
		(Guaranteed (Nominal value)	9.7
	Sleep Mode	Power (Guaranteed value)	1.2 or less
		(Nominal value)	10
		Shift time(Default) S	1 min
		Recovery (Guaranteed value)	Normal DF(D143:15/D144:20) SPDF(D143:15/D144:20)
		(Nominal value)	Normal DF(D143:15/C3d:18) SPDF(D143:15/D144:18)
	TEC (Typical Electricity Consumption)	D143 :normal DF	2,151
		D143 : SPDF	2,150
		D144 : normal DF	2,719
		D144: SPDF	2,749

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Noise Emission

	Mode	Model	DB
Sound Power Level (Mainframe Only)	Stand-by	D143	40 or less
		D144	40 or less
	Copying	D143	71.8(BW), 71.5(FC) or less
		D144	72.0(BW,FC) or less
Sound Power Level (Full System)	Stand-by	D143	40 or less
		D144	40 or less
	Copying	D143	75.8(BW), 75.5(FC) or less
		D144	76.0(BW,FC) or less
Sound Pressure Level (Mainframe Only)	Stand-by	D143	34 or less
		D144	34 or less
	Copying	D143	65.8(BW), 65.5(FC) or less
		D144	66.0(BW,FC) or less
Sound Pressure Level (Full System)	Stand-by	D143	34 or less 69.8(BW),
		D144	34 or less
	Copying	D143	69.8(BW), 69.5(FC) or less
		D144	70.0(BW,FC) or less

Installation Times

Mainframe: 30 minutes

Peripherals:

Peripherals	Installation Time (minutes)	Peripherals	Installation Time (minutes)
ARDF	15	Card Reader Bracket	10
2-Tray Paper Feed unit	10	PostScript3	5
LCT(2000 sheet)	10	Browser Unit	5
LCT(1200 sheet)	10	Bluetooth	5
1 bin Tray	10	Gigabit Ethernet	5
Internal Shift Tray	10	IEEE 1284	5
Bridge Unit	10	IEEE802.11a/ g	5
Side Tray	10	File Format Converter	10
1000-Sheet Finisher	15	IPDS	5
2000-Sheet Booklet Finisher	15	PictBridge	5
3000-Sheet Finisher	15	FAX Option	15
Punch Unit	15	Envelope Feeder	10

Subject to change without notice

Storage/Transportation

Storage Condition	Temperature		-30 ~ 40C	c
	Humidity		Less than 85% RH	% RH
	Storage Period		Max: 12 months	
	Max Stack		3 cartons	
Transportation Condition	Temperature		-30 ~ 40C	c
	Humidity		15% ~ 95% RH	% RH
	Max Stack		2 cartons	
Installation environment	Temperature		10 ~ 32C	c
	Humidity		15% ~ 80% RH	% RH
	Luminance		Less than 1500 lux	lux
	Ventilation		More than 3 times/hr/people	times/hr/people

	Conditions for Storage & Transportation			
	Temperature	**Humidity**	**Storage Period**	**Stack Max**
Toner (Bk)	under 45℃	15 ~ 80%	240 days	8 cartons
Toner (Y/M/C)	under 45℃	15 ~ 80%	240 days	10 cartons
Developer (Bk)	under 45℃	15 ~ 80%	240 days	20 cartons
Developer (Y/M/C)	under 50℃	15 ~ 80%	240 days	20 cartons

Remarks:

* Store in a dry, dark place where temperature does not exceed 45℃ on continuance storage/transportation conditions.
* Do not store more than 12 hours under the temperature between 41 and 45℃. (for Developer Y/M/C, between 41 and 50℃)
* Do not store more than a month under the temperature between 36 and 40℃.
* Do not store more than 14 days under the temperature 40℃ and the humidity 70%.. (except Developer Y/M/C)
* Ideal temperature of toner use is between 10℃ and 32℃

Subject to change without notice

Parts / Special Tools / Maintenance

PM Parts / Yields

Mainframe

Unique/Common
U: Unique for this model
C: Common with listeD089

Part Number	Description	Q'ty/ Unit	Target Yield (Pages)	Yield affected by P/J (see Note 3)	Unique or Common
PCDU					
D1442250	Drum Unit-K	1	300k	Yes	U (Note 1)
D1442252	Drum Unit-CMY	1	150k	Yes	U (Note 1)
D1449640	Developer-K	1	300k	Yes	U (Note 1)
Transfer					
D1446204	ITB Cleaning Unit	1	300k	Yes	U (Note 1)
D1440621	PTR Unit	1	300k	Yes	U (Note 1)
Fusing					
D1444081	Fusing Belt Unit (116V)	1	300k	Yes	U
D1444082	Fusing Belt Unit (223V)	1	300k	Yes	U
D1444057	Pressure Roller	1	300k	Yes	U (Note 1)
Other					
D0896509	Waste Toner Bottle (Note 2)	1	150k	No	U (Note 1)
TBA	Dust Filter	2	TBA	No	TBA

NOTE 1: These items are common with AT-C3.

NOTE 2: The yield figures in the above table are based on the following conditions:

- A4 (LT) long-edge feed
- 5% image coverage ratio
- Color ratio: 30%
- 4 print/job

NOTE 3: For most PM parts, the yield will depend on P/J (pages per job). For more details, see "APPENDIX 1: PM UNIT YIELD" below.

Subject to change without notice

Part Number	Description	Q'ty/ Unit	Expected Yield (Pages)	Yield affected by P/J (see Note 4)	Unique or Common
PCDU					
D1443010	Development Unit – K	1	600k	Yes	U (Note 1 and 2)
D1443020	Development Unit - M	1	480k	Yes	
D1443030	Development Unit - C	1	480k	Yes	
D1443040	Development Unit - Y	1	480k	Yes	
D1449660	Developer - M	1	240k	Yes	
D1449670	Developer - C	1	240k	Yes	
D1449680	Developer - Y	1	240k	Yes	
Transfer					
D1446011	ITB Unit	1	600k	Yes	U (Note 3)

NOTE 1: These items are common with AT-C3.

NOTE 2: The color development units and color developer are treated as EM parts, as the actual yield of these units depends on the actual color ratio.

NOTE 3: The ITB Unit is also an EM part, as its expected yield is relatively long

NOTE 4: For above yield parts, the yield will depend on P/J (pages per job). For more details, see "APPENDIX 1: PM UNIT YIELD" below.

Peripherals:

Auto Reverse Document Feeder: D630

Part Number	Description	Q'ty /Unit	Expected Yield (Originals)	Unique or Common
A8061295	Paper Feed Belt	1	120k	C (AP-C2.5)
B8024361	Pick-up Roller	1	120k	C (AP-C2.5)
A8592241	Reverse Roller	1	120k	C (AP-C2.5)

Single Pass DF

Part Number	Description	Q'ty /Unit	Expected Yield (Originals)	Unique or Common
A8051295	Paper Feed Belt	1	120k	C (AP-C2.5)
B4772225	Pick-up Roller	1	120k	C (AP-C2.5)
A8592241	Reverse Roller	1	120k	C (AP-C2.5)

Note: **Due to their durability and extended service life, the paper feed belt, pick-up roller, and reverse roller are treated as EM parts.**

Subject to change without notice

Options

Special Tools & Lubricants

The following special tools should be prepared for maintenance of the new model in the field:

Item	Part Number	Description	Q'ty	Unique or Common
1	A1849501	Scanner Positioning Pin (2pcs/set)	1	C (General)
2	B6455010	SD Card	1	C (General)
3	52039502	Silicon Grease G-501	1	C (General)
4	A2579300	Grease Barrierta – S552R	1	C (General)
5	B6456705	PCMCIA Card Adapter	1	C (General)
6	G0219350	Loop-back Connector – Parallel	1	C (General)
7	C4019503	20X Magnification Scope	1	C (General)
8	A0929503	C4 Color Test Chart (3 pcs/set)	1	C (General)
9	B6795100	Plug - IEEE1284 Type C	1	C (General)
10	B1329700	Lubricant Powder	1	C (General)

NOTE 5: Loop-back Connector – Parallel (item 6) requires Plug - IEEE1284 Type C (item 9).

NOTE 6: The color development units and color developer are treated as EM parts, as the actual yield of these units depends on the actual color ratio.

Subject to change without notice

Target Reliability

Model	D143	D144
Average Monthly Volume	10K	12K
Max. Monthly Volume	50K	
PM Interval	150K	

The figures above are calculated based on the following:

- PM is regularly performed.
- Recommended paper types are used.
- The machine is installed under operable environmental conditions
- A4 (LT) short-edge feed
- 5% image coverage ratio
- 4P/J

Specifications / Documentation

MainFrame				
General Spec	Configuration		Desk Top	
	Scanning Element		One-dimensional solid scanning through CCD *CIS sensor is also used for scanning back side on SPDF model	
	Printing Process		Dry Electrostatic Transfer System with Dual Component Development; 4-Drum Method	
	Development		Dry two-component magnetic brush development system	
	Fusing		QSU-DH Fusing System	
	Max Image Area		297x432mm	mm
			11"x17"	inch
	First Copy Time (LT/A4 LEF, 1st tray)	Guaranteed value	D143: FC 5.8/BW 3.7, D144: FC 4.9/BW 3.1	sec

MainFrame				
		Nominal value	D143: FC 5.7/BW 3.6, D144: FC 4.8/BW 3.1	sec
	Warm-up Time (From main switch)	US : Guaranteed value	Normal DF model D143: 22.1 / D144: 24.1 SPDF model D143: 22.1 / D144: 24.1	sec
		US : Nominal value	Normal DF model D143: 19 / D144: 21 SPDF model D143: 19 / D144: 21	sec
	CPU		Intel Celeron-M 1.0GHz	GHz
	RAM		2	GB
	HDD		190GB *1 (250GB x 1)	GB
	Power Source	US	120V-127V 60Hz	V/Hz
	Max Power Consumption	US	1,584W or less	W
	Dimension(WxDxH)		670 x 682 x 760 (Standard), 670 x 766 x 1,020 (with 2-Tray Paper Bank and fall-prevention material)	mm
			26.4 x 27.0 x 30 (Standard), 26.4 x 30.2 x 40.2 (with 2-Tray Paper Bank and fall-prevention material)	inch
	Weight		Less than 130kg (with normal ARDF) Less than 133kg (with SPDF) Less than 110kg (without ARDF)	kg
			Less than 287lbs (with normal ARDF) Less than 293lbs (with SPDF) Less than 243lbs (without ARDF)	lbs.
	Simplified Display		Yes	

MainFrame				
	Login/Logout Button		Yes	
	SMC Report Print out (Logging Data)		Yes	
	NRS Option		Yes	
	Java VM		Standard (ver10.01.05*)	
	MFP browser		Opt (version 1.01.0*)	
	Document Server		Yes	
	Auto Off Timer		Yes (1-240min)	
	Energy Saver Timer		Yes (1-240min)	
	Panel Off Timer		No	
	System Reset Timer		Yes (Default: 60sec. / 10-999sec.)	

Paper Handling				
Paper Handling	Recommended Paper Size	1st Paper Tray	A4 LEF, 11"x8 ½ " (LT) LEF (A5 LEF and B5 LEF are able to set by using SP mode.)	
		2/3/4 Paper Tray	A3 SEF, B4 SEF, A4 LEF/SEF, B5 SEF/LEF, A5 LEF, 11"x17"(DLT) SEF, 8 ½"x14" (LG) SEF, 8 ½"x13" (Foolscap) SEF, 8 ½"x11" (LT) LEF/SEF, 8¼"x14" (Government LG), 8 ¼"x13" (Folio) SEF, 8"x13"(F/GL), 8"x10" (Eng Quatro) 7 ¼"x10 ½" (Executive) SEF/LEF, 1	
		LCT	A4 LEF, 8 ½"x11" (LT) LEF	
		Side LCT	A4 LEF, B5 LEF, 8 ½"x11" (LT) LEF	

Paper Handling				
		Bypass Tray	12"x18"/305x458mm, A3/DLT-A6SEF <Custom Size Paper> Width: 90－305mm, Length: 148－1260mm *2	
	Envelope Printing		Yes (from bypass or optional Envelope Feeder)	
	Paper Feeding Capacity(LT/A4)	Std	550sheet x 2trays (less than 55.5mm) Bypass Tray: 100sheets (less than 10mm)	
		Max	4,400 sheets (with LCT, side LCT)	
		Option	Paper Bank Unit: 550sheet x 2 trays Or LCT: 1,000sheet x 2 Side LCT: 1.200 sheets	
	Paper Output Capacity(LT/A4)	Std	Face Down: 500sheets(A4 or smaller/80gms), 250sheets(B4 or larger/80gms) *When Bridge Unit or Side Tray is attached: 250sheets(A4 or smaller/80gms), 125sheets(B4 or larger/80gms)	
		Max	3,625 sheets (with standard 250 sheets + 3,000 sheets Finisher + 1 Bin tray)	
		Option	1 Bin Tray: 125 sheets Or Shift Sort Tray: 250 sheets (Larger than A4/LT) 1000 sheets Finisher: 1000 + 250 sheets Or Booklet Finisher: 2,000 + 250 sheets Or Booklet Finisher: 3,000 + 250 sheets	

Paper Handling				
	Paper Weight	Std Tray/Optional 550x2 Tray/Tandem LCT	60-256	g/m2
		Side LCT	60-216	g/m2
		Bypass	60-300	g/m2
		Duplex Unit	60-169	g/m2

]

Copier Spec				
Copier Spec	CPM Black		D143: 45, D144 : 55	cpm
	CPM Color		D143 : 45, D144 : 55	cpm
	Copy Resolution		600dpi / 4bit	
	Multiple Copying		Up to 999 copies	
	Reproduction Ratio	US	400%, 200%, 155%, 129%, 121%, 100%, 93%, 85%, 78%, 73%, 65%, 50%, 25%	
	Zoom		From 25% to 400% in 1% step	
	Number of Copy Reservations		8	
	Image Density		Auto, Manual	
	Color Mode		Default = Black & White Mode Auto Color Selection (ACS) Full Color Black & White Single Color (Default: not indicated) Preset: 12 colors x4 Density (Default = Red), User color: 15 colors x4 Density Two Color (Default: not indicated) - Black and Other Color - Red and Black	

Copier Spec				
Copier Spec (continued)	Copy Mode		Default = Auto Text & Photo Separation (Printed/Glossy/Copied) Auto Text & Photo Separation (Printed/Glossy/Copied) Photo (Printed/Glossy/Copied) Text Map Pale Generation	
	Paper Selection		Default = Auto Paper Selection (APS) Auto Paper Selection (APS) 1st Tray 2nd Tray 3rd Tray (with Paper Bank) 4th Tray (with Paper Bank) Tandem LCT* Side LCT Bypass Tray	
	Paper Type Capability	Std Tray	[Paper Type] Plain Paper (No Display Paper Type), Recycle Paper, Special Paper 1-3, Color Paper, Letterhead, Cardstock, Preprinted Paper, Bond Paper, High-gloss coated paper, Envelope*, Coated* [Thickness] Thin Paper, Normal Paper, Middle Thick, Thick Paper 1, Thick Paper 2, Thick Paper 3	
		Bank, LCT	[Paper Type] Plain Paper (No Display Paper Type), Recycle Paper, Special Paper 1-3, Color Paper, Letterhead, Cardstock, Preprinted Paper, Bond Paper, High-gloss coated paper, Envelope*, Coated [Thickness] Thin Paper**, Normal Paper, Middle Thick, Thick Paper 1, Thick Paper 2**, Thick Paper 3**	

Copier Spec				
		Bypass Tray	[Paper Type] Plain Paper (No Display Paper Type), Recycle Paper, Special Paper 1-3, Color Paper, Letterhead, Cardstock, Preprinted Paper, Bond Paper, High-gloss coated paper, Envelope, Coated, Label Paper, OHP, [Thickness] Thin Paper, Normal Paper, Middle Thick, Thick Paper 1, Thick Paper 2,Thick Paper 3, Thick Paper 4	
	Auto Tray Switch		Yes	
	Duplex		1 sided to 2 sided, 2sided to 2 sided(w/ARDF), Book to 2 sided, Front and Back to 2 sided	
	Book	Booklet	Yes	
		Magazine	Yes	
		Layout & Booklet	Yes	
	Series	Book to simplex	Yes	
		2 sided original to simplex	Yes	
	Combine (Layout)	2 into 1 simplex	Yes	
		4 into 1 simplex	Yes	
		8 into 1 simplex	Yes	
		1 duplex into 1 simplex	Yes	
		2 duplex into 1 simplex	Yes	
		4 duplex into 1 simplex	Yes	
		4 into 1 duplex	Yes	
		8 into 1 duplex	Yes	
		16 into 1 duplex	Yes	
		2 duplex into 1 duplex	Yes	
		4 duplex into 1 duplex	Yes	
		8 duplex into 1 duplex	Yes	
	Shift/Erase/Margin Adjustment	Centering	Yes	
		Cornering	No	

Copier Spec				
		Margin Adjustment	1mm step (0-30mm)	
		Erase Center	1mm step (2-99mm)	
		Erase Border	1mm step (2-99mm)	
	Cover Sheet/Chapter/Slip Sheets	Front Cover	Copy or Blank (Default=Copy)	
		Front & Back Cover	Copy or Blank (Default=Copy)	
		Chapter	Yes	
		Slip Sheets	Yes	
	Image Rotation		Yes (A4/LT and B5 size)	
	Electronic Sort	Without Shift Sort	Yes	
		Rotate Sort	Yes	
		Shift Sort	Yes (only with Finisher)	
	Electronic Stack		Yes	
	Stapling		Yes (with Finisher)	
	Color Creation	Color Conversion	Yes	
		Color Erase	Yes	
		Color Overlay	Yes	
	Image Creation	Repeat	Yes	
		Double Copy	Yes	
		Mirror	Yes	
		Positive/Negative	Yes	
	Stamp/Numbering	Preset Stamp	Yes (8 Stamps)	
		User Stamp	Yes (4 Stamps can be registered)	
		Date Stamp	Yes (5 styles)	
		Page Number	Yes (6 styles)	
		Bates Numbering	Yes (9 digits / zero suppression: no)	
	Color Balance Adjustment		Yes	
	Color Balance Program		Yes	
	Auto Color Calibration(ACC)		Yes	
	Sharp/Soft		7 levels	
	Contrast		9 levels	
	Background Density Adjustment		9 levels	
	Under Color Removal(UCR) Adjustment		9 levels	
	Text & Photo Separation Sensitivity Adjustment		9 levels	
	Color Erase Sensitivity Adjustment		5 levels	
	Job Programs		25	
	User Code		8 digits / 1000 user codes	
	Interrupt Copy		Yes	

Copier Spec				
	Auto Start		Yes	
	Job Preset		Yes(8 jobs)	
	Sample Copy		Yes	

Printer Spec.				
Printer Spec.	PDL	Std	PCL5c, PCL6(XL), PDF	
		Option	Adobe PostScript3, IPDS	
	Print Resolution	Max	1200 x 1200 dpi / 1bit	dpi
		PCL5c	-300 x 300 dpi (available only with B/W mode) -600 x 600 dpi <Gradation *5> Fast (1bit) / Standard (2bit) / Fine (4bit)	dpi
		PCL6	-600 x 600 dpi <Gradation *5> Fast (1bit) / Standard (2bit) / Fine (4bit) -1200 x 1200 dpi	dpi
		PS3	-600 x 600 dpi <Gradation *5> Fast (1bit) / Standard (2bit) / Fine (4bit) -1200 x 1200 dpi (1bit)	dpi
		XPS *6	-600 x 600 dpi <Printing Mode *5> Standard (1bit) / Quality Preference (2bit) / High Quality (4bit) -1200 x 1200 dpi	dpi
		IPDS	-300 x 300 dpi -600 x 600 dpi	dpi
	Fonts	Std	PCL: Scalable 45 fonts + International 13 fonts *7 PS3: 136 Roman fonts	
		Option	IPDS : 108 Roman fonts	

Printer Spec.				
	Host Interfaces	Std	Ethernet (RJ-45 network port : 10Base-T /100Base-TX), USB2.0 Type B, USB2.0 Type A(2 port), Front USB/SD Slot （1port）	
		Option	Ethernet (1000Base-T) IEEE1284/ECP, Wireless LAN (IEEE802.11a,b,g, WPA support), Bluetooth	
	Network Protocol		TCP/IP (IP v4, IP v6), IPX/SPX*8	
	Standard MIB		MIB-II(RFC1213), Host Resource(RFC1514), Printer Mib(RFC1759), Printer Port Monitor MIB	
	Private MIB		Ricoh Original	
	Network/Operating System		Windows XP/Vista/7/Server 2003/Server 2008/Server 2008R2 Netware 6.5*9 Unix; Sun Solaris, HP-UX, SCO OpenServer, RedHat Linux, IBM AIX Mac OS X v.10.2 or later SAP R/3, NDPS Gateway IBM series/ AS/400-using OS/400 Host Print Transform	

Scanner Spec				
Scanner Spec	Color Scan		Std	
	Scanning Speed (normal DF)	B&W	67pages/minute (A4/LET LEF / 200dpi/300dpi) Push Scan	ipm
		Color	67pages/minute (A4/LET LEF / 200dpi/300dpi) Push Scan	ipm
	Scanning Speed (single pass duplex DF)	B&W	85(simplex)/116(duplex)pages/minute (A4/LET LEF / 200dpi/300dpi) Push Scan	ipm
		Color	85(simplex)/116(duplex)/pages/minute (A4/LET LEF / 200dpi), 110(duplex)/pages/minute(A4/LET LEF/300dpi) Push Scan	ipm
	Scanning Resolution	Std	100 / 200 / 300 / 400 / 600/ 1200* dpi	dpi
		Default	200dpi	dpi

Scanner Spec				
	Auto Size Detection	Contact Glass	11"x17"(DLT) SEF, 8 ½"x14"(LG) SEF, 8 ½"x11"(LT) LEF/SEF, 8 1/2"×5 1/2"(HLT) LEF, *SP mode adjustment is required : 8 1/2"×5 1/2"(HLT)SEF	
	(US Model)	ARDF *9	11"x17" (DLT)SEF, 8 ½"x14" (LG)SEF, 8 ½"x11"(LT) LEF/SEF, 5 ½"x8 ½"(HLT) LEF/SEF, 8 1/2"×13"(Foolscap) SEF 10"x14"SEF, 11"x15"SEF (detected the same as DLT SEF, Default = DLT SEF), 8"x10"SEF (detected the same as LT SEF, Default = LT SEF) 7 1/4"x10½"(EXE) LEF/SEF	
	Auto Size Detection	Contact Glass	A3 SEF, B4 SEF, A4 LEF/SEF, B5 LEF/SEF, A5 LEF, 8 1/2"x13"(F) SEF, *SP mode adjustment is required : A5 SEF, 8"x13"(F) SEF,-8 1/4"x13"(Folio) SEF, 8K SEF, 16K LEF/SEF	
	(EU/ASIA/CHINA Model)	ARDF *9	A3 SEF, B4 SEF, A4 LEF/SEF, B5 LEF/SEF, A5 LEF/SEF, DLT SEF, LT SEF/LEF, 8"x13"(F) SEF (detected the same as Foolscap SEF, Default = Foolscap SEF), 8 ½"x13" (Foolscap) SEF, 8 1/4"x13"(Folio) SEF	
	Scan Area	Main Scan	297mm	mm
		Sub Scan	432mm	mm
	sRGB Support		Std	
	Network Interface		Ethernet 10BASE-T / 100BASE-TX / 1000BASE-T, Wireless LAN (IEEE802.11a,b,g, WPA support),	

Scanner Spec					
	Protocol		Network: TCP/IP Sending E-mail: SMTP, POP, IMAP4 Scan to Folder: SMB, FTP, NCP* Web Services on Devices for Scanning		
	Compression Method	B&W	1bit(MH, MR, MMR, JBIG2*), Grayscale(JPEG)		
		Color	JPEG		
	Scan Mode		BW Text/Line Art, BW Text, BW Text/Photo, BW Photo, BW Grayscale, FC Text/Photo, FC Glossy Photo, ACS(Auto Color Selection)		
	Image Density		Auto Density Selection(Effective in BW/Grayscale and FC scan mode) Manual: 7 levels (Effective in BW/Grayscale and FC scan mode)		
	Image Rotation		Yes		
	SADF/Batch Mode		Yes		
	Mixed Size Mode		Yes		
	Reduce and Enlarge		Yes		
	Split scan from Booklet type original		Yes		
	Digital Signature for PDF			Yes	
	File Format		Compression On / Off	Data / Compression Method	
	Single Page TIFF		On	BW 1bit / (MH, MR or MMR)	
			Off	BW 1bit, BW Grayscale or Full Color	
	Multi Page TIFF		On	BW 1bit /(MH, MR or MMR)	
			Off	BW 1bit, BW Grayscale or Full Color	
	Single Page JPEG		On	BW Grayscale or Full Color / (JPEG)	
			Off	-	
	Single Page PDF		On	BW 1bit / (MH, MR, MMR or JBIG2), BW Grayscale / (JPEG), Full Color / (JPEG)	
			Off	BW 1bit, BW Grayscale or Full Color	
	Multi Page PDF		On	BW 1bit / (MH, MR, MMR or JBIG2), BW Grayscale / (JPEG), Full Color /	

Scanner Spec				
			(JPEG)	
		Off	BW 1bit, BW Grayscale or Full Color	
	Single Page High Compression PDF	On	BW Grayscale / (JPEG or JPEG2000), Full Color / (JPEG or JPEG2000)	
		Off	-	
	Multi Page High Compression PDF	On	BW Grayscale / (JPEG or JPEG2000), Full Color / (JPEG or JPEG2000)	
		Off	-	
	Single Page PDF-A	On	BW 1bit / (MH, MR, MMR or JBIG2), BW Grayscale / (JPEG), Full Color / (JPEG)	
		Off	BW 1bit, BW Grayscale or Full Color	
	Multi Page PDF-A	On	BW 1bit / (MH, MR, MMR or JBIG2), BW Grayscale / (JPEG), Full Color / (JPEG)	
		Off	BW 1bit, BW Grayscale or Full Color	
Scan to Email	Requirement (Mail Protocol, Transmission Protocol, Protocol)		SMTP (Mail Server) Gateway and TCP/IP	
	Authorization Function		SMTP authentication POP before SMTP authentication	
	Resolution	Std	100, 200, 300, 400, 600	dpi
		Default	200	dpi
	Max Email Address in HDD		2000	
	Register Group Address in HDD		Max. 100 Group (Max. 500 addresses in one group address)	
	Maintain Email Address in HDD		Direct input on operation panel, Web Image Monitor, Smart Device Monitor	

Scanner Spec				
			for Admin	
	Input of Destination E-mail Address via Soft Key	Possible, Max. 100 destinations per job		
	Search method of Email Address in HDD		By name and E-mail address	
	LDAP Search		Yes	
	Max Address Numbers Per Send		Max. 500 addresses per send *10	
	Address Numbers Per Send	from HDD	Max 500 *10	
		direct input	Max 100 *11	
		via LDAP	Max 100 *11	
	Simultaneous Transmission		Max.550	
	Attention		To, cc, bcc	
	Email Size	with Restriction	128 - 102,400KB	
		w/o Restriction	725MB	
	Input Subject	Manual	Max. 128 Characters via soft key	
		User Pre-register	22 subjects. Max. 20 Characters per a subject	
	Input Main Body Text	Manual	Max. 80 Characters via keyboard	
		User Pre-register	5 BODY MESSAGES. 80 CHARACTERS X 5 LINES PER A BODY MESSAGE Title name of the body message: Max. 20 characters per a name	
		Preset	Message: "This e-mail included attached file sent from xxxx(machine model name)."	
	Input File Name		Yes	

Scanner Spec				
Scan to Email (continued)	File Type		Single Page TIFF/JPEG/PDF/PDF-A/High Compression PDF Multi Page TIFF/PDF/PDF-A/High Compression PDF	
	Program User Settings		Up to 25 programs	
	Divide and send Email (If the file size exceed the max size.)		Yes (By page or size) / No, Default = Yes(By size) *13	
	Resend		Yes / No, Default = Yes	
Scan to Folder	Protocol Support		SMB, FTP, NCP*	
	Security		Client folder log-in (log-in name and password), Encryption of log-in name and password during transmission	
	Resolution	Std	100dpi, 200dpi, 300dpi, 400dpi, 600dpi	dpi
		Default	200	dpi
	Register client folder address in HDD		Max. 2,000 folders	
	Maintain client folder address in HDD		Direct input on operation panel, WebImageMonitor, SmartDeviceMonitor	
	Direct addressing of destination client folder via soft key		Yes	
	Search client folder		SMB: Browsing directly to the designated folders FTP: By client folder name NCP: Browsing*	
	Home folder over LDAP		Yes	
	Max. client folder numbers per send	Max. 50 client folders / PCs per send		
	Simultaneous Transmission		Max.550	
	Group address		Max. 500 destinations (Folder destination must be less than 50) e.g. 500 destinations (50 folders included) >OK 500 destinations (51 folders included)	

Scanner Spec				
			>Failure	
	Input File Name		Yes	
	Scan to File size		2,000	MB
	File Size when combined Scan to Folder & Scan to E-mail	128 - 102,400kB, Default = 2,048KB (With restriction) 725MB (Without restriction) (Scan to E-mail file size applied).		
	File Type		Single Page TIFF/JPEG/PDF/PDF-A/High Compression PDF Multi Page TIFF/PDF/PDF-A/High Compression PDF	
	Program User Settings		Up to 25 programs	
	Resend		Yes / No, Default = Yes	
Network TWAIN Driver	OS		32bit/64bit: Windows XP, Vista, 7, Server2003/2008 64bit: Windows Server 2008R2 (Operates in 32-bit compatibility mode on 64-bit operating systems)	
	Scanning Speed	B&W	with normal DF: Simplex(200dpi): with MLB 72(compressed), without MLB 72(compressed & uncompressed) Duplex(200dpi): with MLB 48(compressed), without MLB 49(compressed)/48(uncompressed) with SPDF: Simplex(200dpi): with MLB 81(compressed), without MLB 81(compressed), 80(without compressed) Duplex(200dpi): with MLB 120(compressed), without MLB 120(compressed &	ipm

Scanner Spec				
			uncompressed)	
		Color	with normal DF: Simplex(200dpi): with MLB 71(compressed), without MLB 71(compressed & uncompressed) Duplex(200dpi): with MLB 48(compressed), without MLB 48(compressed & uncompressed) with SPDF: Simplex(200dpi): with MLB 80(compressed), without MLB 80(compressed)/81(uncompressed) Duplex(200dpi): with MLB 121(compressed), without MLB 121(compressed & uncompressed)	ipm
	Resolution	B&W	100 – 1200dpi (Black and White / Grayscale)	dpi
		Color	100 – 1200dpi (Full Color)	dpi
	Scan Mode		Standard / Photo / OCR / Filing	
	Image Adjustment		Brightness / Contrast / Threshold /Gamma Adjustment / Halftone Pattern	
	Endorser		Supported	
	Stamp		Date / Page Number / Text	

Fax Spec				
Fax Spec	Circuit		PSTN, PBX	
	Compatibility		ITU-T (CCITT) G3,	
	Resolution		Standard mode: 8 x 3.85 line/mm, 200 x 100dpi, Detail mode: 8 x 7.7 line/mm, 200 x 200dpi, Super Fine mode*: 8 x 15.4 line/mm, 16 x 15.4 line/mm, 400 x 400dpi	
	Compression Method		MH, MR, MMR, JBIG	
	Scanning Speed (Platen used)		0.70sec.(A4/LT SEF, 200 x 100 dpi),	
	Scan Page per Minute(normal DF used)	A4/LT SEF	Standard mode: 58 spm Detail mode: 58 spm Super Fine mode: 48 spm	spm
		A4/LT LEF Image Rotation	Standard mode: 68 spm Detail mode: 63 spm Super Fine mode: 34 spm	spm
	Scan Page per Minute(SPDF used)	A4/LT SEF	Standard mode: 64 spm Detail mode: 64 spm Super Fine mode: 52 spm	spm
		A4/LT LEF Image Rotation	Standard mode: 70spm Detail mode: 61spm Super Fine mode: 33 spm	spm
	Modem Speed		33.6K – 2,400bps (G3, Standard with Automatic Shift Down) (33600, 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, 2400 bps)	
	Transmission Speed		G3: Approx.2 seconds (200x100 dpi, JBIG, ITUT #1 chart TTI off, memory transmission) G3: Approx.3 seconds (200x100dpi, MMR, ITUT #1 chart, TTI off, memory transmission)	
	SAF Memory Size	Std	4MB (Approx.320 pages)	MB
		with Optional	28MB (Approx. 2,240	MB

Fax Spec				
		Memory	pages)	
	Memory Backup		One hour	
	Smoothing		Standard (1bit)	
	TTI/RTI		Standard	
	CSI		Standard	
	Quick dial/ Speed dial		Standard: 2,000 numbers	
	Group Dial		Standard: 100 groups	
	Program		Standard: 100 numbers	
	Redial		Standard	
	Direct Fax Number Entry		Standard	
	Dual access		Standard	
	User Code		Standard 1000 Codes	
	Page Counter		Standard	
	Auto Reduction		Standard	
	Wild Cards for Special Senders		Standard	
	Summer Time		Standard	
	Memory Lock ID Code		Standard	
	SID Code (Sender ID)		Standard	
	Programming by OMR		No	
	User Function Key		Standard (3 keys)	
	Energy Saver		Standard	
	Remaining Memory Indication		Standard	
	Clock Adjustment		Standard	
	User Parameter Settings		Standard	
	Remote FAX		Optional	
Fax Transmission Spec	Immediate Transmission		Standard	
	Parallel Memory Transmission		Standard	
	Memory Transmission		Standard	
	Pulse/Tone Selection		Standard	
	Pause		Standard	
	Serial Broadcasting		Standard (Max. 500 numbers)	
	Preview before Transmission		Standard	
	Displaying the destination prior to transmission		Standard	
	Send Later		Standard	
	Error Correction Mode		Standard	
	Page Retransmission		Standard	
	Forwarding		Standard	
	Image Rotation		Standard	
	Book Fax		Standard	
	Closed Network Transmission		Standard	
	Double Sided Transmission		Standard	
	Handset/Telephone		Option	
	Telephone Connection		Option	

Fax Spec				
	Automatic Voice Message		No	
	On Hook Dial		Standard	
	Tone Transmission		Standard	
	Chain Dialing		No	
	Reception Mode Selection		Standard	
	Automatic Fax/Phone change		No	
	Answering Machine interface		No	
	Auto Answer Delay Time		Standard (SP mode)	
	Busy Tone Detection		Standard	
	Silent Ringing Detection		No	
Fax Reception Spec	Automatic Reception		Standard	
	Manual Reception		Standard	
	Substitute Reception		Standard	
	Authorized Reception		Standard	
	Multi Copy		Standard	
	Closed Network		Standard	
	Reception Time Printing		Standard	
	Center Mark		Standard	
	Checkered Mark		Standard	
	Night Timer (Weekly timer)		Standard	
	Printing by Specified Color		No	
	Toner Saving Mode		No	
	2 in 1 Reception		Standard	
	Duplex Reception		Standard	
Internet Fax Spec	Requirement of Mainframe		G3 fax option is required.	
	Number of Address		2,000	
	Email Address Input		From LCD operation panel, Web Image Monitor, Smart Device Monitor for Admin	
	Attention		“to" or “bcc" (select only one), max 500 attentions	
	Destination Combination		G3 Fax destination, IP Fax destination, e-mail destination, folder destination	
	Network		Ethernet 10BASE-T / 100BASE-TX/ 1000BASE-T, Wireless LAN (IEEE802.11a,b,g, WPA support)	
	Transmit Function		E-mail	

Fax Spec				
	Scan Line Density		200 x 100 dpi(Standard character), 200 x 200 dpi(Detail character), 200 x 400 dpi(Fine character: optional) *14 , 400 x 400 dpi(Super Fine character: optional) *14	
	Maximum Original Size		A3/DLT *14	
	Communication Protocol		Transmission SMTP, TCP/IP Reception POP3, SMTP, IMAP4, TCP/IP	
	IPv6 support		Yes	
	Email Format		Single/Multi-part, MIME Conversion Attached file forms: TIFF-F(MH, MR *14, MMR*14 compression)	
	Authentication Method		SMTP-AUTH, POP before SMTP, A-POP	
	Internet Communication		Send and receive e-mail with a computer that has an e-mail address	
	Email Send Functions		Automatic conversion of sent documents to e-mail format and e-mail transmission. Memory transmission only.	
	Email Receive Functions		Automatic detection and printing of appended TIFF-F(MH) files and ASCII text. Memory reception only.	
LAN Fax Spec	Paper Size		A3, DLT, B4, A4 (default for EU/Asia model), Letter (default for NA model), Legal, B5, A5	
	Resolution		Super Fine (400 x 400 dpi) Detail (200 x 200 dpi) *default Standard (200 x 100 dpi)	dpi
	The Number of Selectable Address at one time		500	
	OS		Windows XP, Server2003, Vista, Server2008, 7, Server2008R2	

Fax Spec				
	LAN-Fax Editor Support Language		1.English, 2.German, 3.French, 4.Italian, 5.Spanish, 6.Dutch, 7.Swedish, 8.Norwegian, 9.Danish, 10.Finnish, 11.Hungarian, 12.Czech, 13.Polish, 14.Portuguese, 15.Russian, 16.Brazilian Portuguese, 17.Greek, 18.Traditional Chinese, 19.Simplified Chinese 20.Catalan, 21.Turkish Condition: OS need to have the same language.	
IP Fax Spec	Network		Ethernet 10BASE-T / 100BASE-TX/ 1000BASE-T, Wireless LAN (IEEE802.11a,b,g, WPA support)	
	Scan Line Density		Standard mode: 8 x 3.85 line/mm, 200 x 100dpi, Detail mode: 8 x 7.7 line/mm, 200 x 200dpi, Super Fine mode*: 8 x 15.4 line/mm, 16 x 15.4 line/mm, 400 x 400dpi	
	Original Size		Maximum A3 or 11" x 17" (DLT)	
	Max Scanning Size		Standard: A3, 297mm x 432mm, Irregular: 297mm x 1200mm	
	Transmission Protocol		Recommended: T.38, TCP, UDP/IP communication, SIP(RFC 3261 compliant), H.323 v2	
	IPv6 support		No	
	Compatible Machines		IP-Fax compatible machines	
	IP-Fax Transmission Function		Specify an IP address and send faxes to an IP-Fax compatible fax through a network. Also capable of sending faxes from a G3 fax connected to a telephone line via a VoIP gateway.	

Fax Spec				
	IP-Fax Reception Function		Receive faxes sent from an IP-Fax compatible fax through a network. Also capable of receiving faxes from a G3 fax connected to a telephone line via a VoIP gateway	

Document Server	
HDD Capacity	190
Max Stored Documents	3,000
Max Pages Per Documents	2,000
Max Pages of All Stored Documents	9,000
Storage Period	1-180 days, or "no limit"

Security Specifications	
Network User Authentication	Yes
IP Address Filtering	Yes
MAC Address Filtering	No
HDD Overwrite	Yes(std)
HDD Encryption	Yes(std)
Copy Guard Security	Yes
Secure Print	Yes
Encrypted Secure Print	Yes
Encrypted PDF Mode	Yes
Digitally signed PDF	Yes
IP Sec	Yes
Secure Sockets Layer(SSL)	Yes
SNMPv3	Yes
SMTP over SSL	Yes
IPv6	Yes
Transport Layer Security	Yes
Removable HDD	No

Model	Mode	gsm	lb. Bond	BK CPM	FC CPM
D143	Thin Paper	-52-59	-14~15	45	45
	Plain Paper	-81	-22	45	45
	Middle Thick	-105	-28	45	45
	Thick Paper 1	-169	-45	25	25
	Thick Paper 2	-220	-58	17.5	17.5
	Thick Paper 3	-256	-68	17.5	17.5
	Thick Paper 4	-300	-80	15	15
	OHP, 1200dpi printing High gloss paper	-	-	17.5	17.5
D144	Thin Paper	-52-59	-14~15	55	55
	Plain Paper	-81	-22	55	55
	Middle Thick	-105	-28	55	55
	Thick Paper 1	-169	-45	25	25
	Thick Paper 2	-220	-58	17.5	17.5
	Thick Paper 3	-256	-68	17.5	17.5
	Thick Paper 4	-300	-80	15	15
	OHP, 1200dpi printing High gloss paper	-	-	17.5	17.5

Options

LCIT PB3140				
1000 Sheet x 2 LCT	Paper Size		8 ½"x11"(LT) LEF / A4 LEF	
	Paper Weight		52- 256g/m2	g/m2
			14 68lbs	lbs
	Paper Output Capacity		2,000sheets(1000 sheets x 2 trays with 80g/m2 paper)	
	Power Consumption		Max: Less than 45W (for Print function) Average: Less than 27W (for Print function)	W
	Dimension(WxDxH)		580(W) x 620(D) x 260(H)mm	mm
			22.8"x24.4"x10.2"	inch
	Weight		Less than 26kg	kg
			Less than 57.3lbs	lbs.

Paper Feed Unit PB3130				
2 Tray Paper Bank	Paper Size		A5 LEF – 11"x17"(DLT) SEF / A3 SEF	
	Paper Weight		52-256 g/m2	g/m2
			14-68lbs	lbs
	Paper Output Capacity		550sheets (550 sheets x 2 tray with 80g/m2 paper)	
	Power Consumption		Max: Less than 40W (for Print function) Average: Less than 25W (for Print function)	W
	Dimension(WxDxH)		580(W)x620(D)x260(H)mm	mm
			22.8"x24.4"x10.2"	inch
	Weight		Less than 26kg	kg
			Less than 57.3lbs	lbs.

Side LCT RT3020				
Side LCT	Paper Size		8 ½"x11" LEF (LT)/ A4 LEF/B5LEF	
	Paper Weight		60-216g/m2 *169-216 g/m2 :paper type is limited	g/m2
			16-57.5lbs *169-216 g/m2 :paper type is limited	lbs
	Paper Output Capacity		1,200 sheets (80g/m2 paper)	
	Power Consumption		Less than 55W (Power is supplied from mainframe)	W
	Dimension(WxDxH)		540(W) x 384(D) x 290(H)mm	mm
			21.3"x15.1"x11.4"	inch
	Weight		less than 12kg	kg
			less than 26.5lbs	lbs.

2000 Sheets Booklet Finisher SR3110				
2000 Sheets Booklet Finisher	Paper Size	Proof Tray	5 ½"x8 ½"LEF/SEF(HLT) – 11"x17" (DLT), 12"x18" A6 SEF, B6SEF, A5SEF/LEF – A3 SEF	
		Shift Tray	5 ½"x8 ½"LEF/SEF(HLT) – 11"x17"(DLT), 12"x18" A6 SEF, B6SEF, A5SEF/LEF – A3 SEF	
	Paper Weight	Proof Tray	52-163g/m2	g/m2
			14-43lbs	lbs
		Shift Tray	52-256g/m2	g/m2
			14-68lbs	lbs
	Stack Capacity	Proof Tray	250 sheets (A4 / 8 ½"x11" or smaller / 80g/m2 / 20 lbs) 50 sheets (B4 / 8 ½"x14" or larger / 80g/m2 / 20lbs)	
		Shift Tray	2000 sheets (A4 LEF/ 8 ½"x11" (LT) LEF) 1000 sheets (B5, B4SEF, A4 SEF, A3 SEF, LT SEF, LG, DLT SEF, 12"x18") 500 sheets (A5LEF) 100 sheets (A6 SEF, A5 SEF, B6 SEF, HLT LEF/SEF)	

2000 Sheets Booklet Finisher SR3110				
		Normal Staple Sort	LT LEF, A4 LEF: 40 – 150 sets (50 – 13 sheets/set) 150 sets (2 – 12 sheets/set) LT SEF, B5, A4 SEF: 20 - 100 sets (50 - 10 sheets/set) 100 sets (2 – 9 sheets/set) LG, DLT, B4, A3: 33 - 100 sets (30 – 10 sheets/set) 100 sets (9 – 2 sheets/set)	
		Saddle Stitch Staple Sort	30 sets (2 - 5 sheets/set, all size for saddle stitch) 15 sets (6 - 10 sheets/set, all size for saddle stitch) 10 sets (11 - 15 sheets/set, all size for saddle stitch)	
		Mixed Size	50 sets (2-30 sheets/set) Combination(A3 SEF and A4 LEF), (B4 SEF and B5 LEF), (DL SEF and LT LEF)	
	Staple Capacity	Normal Staple	[Single Size] 50 sheets (A4 / 8 ½"x11" (LT)or smaller / 80g/m2 / 20 lbs) 30 sheets (B4 / 8 ½"x14"(LG) or larger / 80g/m2 / 20lbs) [Mixed Size] 30 sheets(A4 LEF and A3), (B5 LEF and B4), (LT LEF and DLT)	
		Saddle Stitch Staple	15 sheets (80g/m2 / 20 lbs)	
	Staple Paper Size	Normal Staple	8 ½"x11" (LT) – 11"x17"(DLT), B5 LEF/SEF – A3 SEF	
		Saddle Stitch Staple	8 ½"x11" (LT) SEF, 8 ½"x14" (LG), 11"x17"(DLT) SEF, B5 SEF, A4 SEF, B4 SEF, A3 SEF	
	Staple Paper Weight	Normal Staple	64-90g/m2, 2 cover sheets/set(163g/m2) available	g/m2
			17-24lbs 2 cover sheets/set(163g/m2) available	lbs
		Saddle Stitch Staple	64-90g/m2, 1 cover sheet/set(163g/m2) available	g/m2
			17-24lbs 1 cover sheet/set(163g/m2) available	lbs

2000 Sheets Booklet Finisher SR3110				
	Staple Position		1 staple / 3 positions 2 staples / 2 positions	
	Staple Cartridge Capacity		[Normal Staple] 5,000pcs. /cartridge [Saddle Stitch] 2,000pcs./cartridge	
	Power Consumption		96W	W
	Dimension(WxDxH)		657x613x960mm	mm
			25.9"x25.1"x37.8"	inch
	Weight		Less than 47Kg	kg
			Less than 103.6lbs	lbs.
Punch Unit(Option)	Paper Size	NA/2 Holes	[Paper size] SEF: HLT – DLT/ A5 – A3, LEF: HLT, LT, A4-A5	
		NA/3 Holes	[Paper size] SEF: DLT, B4, A3, LEF: LT, B5, A4	
	Paper Weight	NA/2 Holes	[Paper Weight] 52-163g/m2	g/m2
			[Paper Weight] 14 – 43 lbs	lbs
		NA/3 Holes	[Paper Weight] 52-163g/m2	g/m2
			[Paper Weight] 14 – 43 lbs	lbs

1000 Sheets Finisher SR3090				
1000 Sheets Finisher	Paper Size	Proof Tray	5 ½"x8 ½"LEF/SEF(HLT) – 11"x17"(DLT), A6 SEF - A3 SEF, 12"x18"	
		Shift Tray	5 ½"x8 ½"LEF/SEF(HLT) – 11"x17"(DLT), A6 SEF - A3 SEF, 12"x18"	
	Paper Weight	Proof Tray	52-260g/m2	g/m2
			14-69lbs	lbs
		Shift Tray	52-163g/m2	g/m2
			14-43lbs	lbs
	Stack Capacity	Proof Tray	250 sheets (A4 / 8 ½"x11" or smaller / 80g/m2 / 21.3lbs) 50 sheets (B4 / 8 ½"x14" or larger / 80g/m2 / 21.3lbs)	
		Shift Tray	1000 sheets (A4 / 8 ½"x11" or smaller / 80g/m2 / 21.3lbs) 500 sheets (B4 / 8 ½"x14" or larger / 80g/m2 / 21.3lbs)	
		Normal Staple Sort	LT LEF, A4 LEF: 20-100 sets (50 – 10 sheets/set) 100 sets (2 – 9 sheets/set) LT SEF, B5, A4 SEF: 10 - 50 sets (50 - 10 sheets/set) 100 sets (2 – 9 sheets/set) 12"x18", LG, DLT, B4, A3: 10 - 50 sets (30 – 10 sheets/set) 50 sets (2– 9 sheets/set)	
	Staple Capacity		50 sheets (A4 / 8 ½"x11" or smaller / 80g/m2 / 21.3lbs) 30 sheets (B4 / 8 ½"x14" or larger / 80g/m2 / 21.3lbs)	
	Staple Paper Size		8 ½"x11"(LT) – 11"x17"(DLT), B5 LEF/SEF – A3 SEF, 12"x18"	
	Staple Paper Weight		64-90g/m2	g/m2
			17-24lbs	lbs
	Staple Position		1 staple / 2 positions 2 staples / 1 positions	
	Staple Cartridge Capacity		5,000pcs. /cartridge	
	Power Consumption		Less than 50W	W
	Dimension(WxDxH)		270x520x790mm	mm
			10.7"x20.5"x31.2"	inch
	Weight		Less than 25Kg	kg
			Less than 55.2lbs	lbs.

3000 Sheets Finisher SR3120				
3000 Sheets Finisher	Paper Size	Proof Tray	5 ½"x8 ½"LEF/SEF(HLT) – 11"x17" (DLT), 12"x18" A6 SEF, B6SEF, A5SEF/LEF – A3 SEF	
		Shift Tray	5 ½"x8 ½"LEF/SEF(HLT) – 11"x17"(DLT), 12"x18" A6 SEF, B6SEF, A5SEF/LEF – A3 SEF	
	Paper Weight	Proof Tray	52-163g/m2	g/m2
			14-43lbs	lbs
		Shift Tray	52-256g/m2	g/m2
			14-68lbs	lbs
	Stack Capacity	Proof Tray	250 sheets (A4 / 8 ½"x11" or smaller / 80g/m2 / 20 lbs) 50 sheets (B4 / 8 ½"x14" or larger / 80g/m2 / 20lbs)	
		Shift Tray	3000 sheets (A4 LEF/ 8 ½"x11" (LT) LEF) 1500 sheets (B5, B4SEF, A4 SEF, A3 SEF, LT SEF, LG, DLT SEF, 12"x18") 500 sheets (A5LEF) 100 sheets (A6 SEF, A5 SEF, B6 SEF, HLT LEF/SEF)	
		Normal Staple Sort	LT LEF, A4 LEF: 60 – 150 sets (50 – 20 sheets/set) 150 sets (2 – 19 sheets/set) LT SEF, B5, A4 SEF: 30 - 100 sets (50 - 15 sheets/set) 100 sets (2 – 14 sheets/set) LG, DLT, B4, A3: 33 - 100 sets (30 – 15 sheets/set) 100 sets (14 – 2 sheets/set)	
		Mixed Size	50 sets (2-30 sheets/set) Combination(A3 SEF and A4 LEF), (B4 SEF and B5 LEF), (DL SEF and LT LEF)	
	Staple Capacity		[Single Size] 50 sheets (A4 / 8 ½"x11" (LT)or smaller / 80g/m2 / 20 lbs) 30 sheets (B4 / 8 ½"x14"(LG) or larger / 80g/m2 / 20lbs) [Mixed Size] 30 sheets(A4 LEF and A3), (B5 LEF and B4), (LT LEF and DLT)	
	Staple Paper Size		8 ½"x11" (LT) – 11"x17"(DLT), B5 LEF/SEF – A3 SEF	

3000 Sheets Finisher SR3120				
	Staple Paper Weight		64-90g/m2, 2 cover sheets/set(163g/m2) available	g/m2
			17-24lbs 2 cover sheets/set(163g/m2) available	lbs
	Staple Position		1 staple / 3 positions 2 staples / 1 positions	
	Staple Cartridge Capacity		5,000pcs. /cartridge	
	Power Consumption		96W	W
	Dimension(WxDxH)		657x613x960mm	mm
			25.9"x25.1"x37.8"	inch
	Weight		Less than 47Kg	kg
			Less than 103.6lbs	lbs.
Punch Unit(Option)	Paper Size	NA/2 Holes	[Paper size] SEF: HLT – DLT/ A5 – A3, LEF: HLT, LT, A4-A5	
		NA/3 Holes	[Paper size] SEF: DLT, B4, A3, LEF: LT, B5, A4	
		EU/2 Holes	[Paper size] SEF: HLT – DLT/ A5 – A3, LEF: HLT, LT, A4-A5	
		EU/4 Holes	[Paper size] SEF: DLT, B4, A3, LEF: LT, B5, A4	
		SC/4 Holes	[Paper size] SEF: HLT – DLT/ A5 – A3, LEF: HLT, LT, A4-A5	
	Paper Weight	NA/2 Holes	[Paper Weight] 52-163g/m2	g/m2
			[Paper Weight] 14 – 43 lbs	lbs
		NA/3 Holes	[Paper Weight] 52-163g/m2	g/m2
			[Paper Weight] 14 – 43 lbs	lbs
		EU/2 Holes	[Paper Weight] 52-163g/m2	g/m2
			[Paper Weight] 14 – 43 lbs	lbs
		EU/4 Holes	[Paper Weight] 52-163g/m2	g/m2
			[Paper Weight] 14 – 43 lbs	lbs
		SC/4 Holes	[Paper Weight] 52-163g/m2	g/m2
			[Paper Weight] 14 – 43 lbs	lbs

1 Bin Tray BN3100			
1 Bin Tray	**Paper Size**	5½" x 8½" SEF - 11" x 17", A5 LEF - A3 SEF,	
	Paper Weight	60-169 g/m2	g/m2
		16 - 50 lbs	lbs
	Paper Output Capacity	125 sheet with 80 g/m2 paper	
	Power Consumption	Max 12W (Power is supplied from mainframe)	W
	Dimension(WxDxH)	565(W) x 410(D) x 115(H)mm	mm
		22.2" x 16.1" x 4.6"	inch
	Weight	Less than 2.5kg	kg
		Less than 5.5lbs	lbs.

Internal Shift Tray SH3060			
Internal Shift Tray	Paper Size	5½" x 8½" SEF - 12" x 18", A6 SEF - A3 SEF, 305mm x 432mm or smaller, Max. 305mm x 1260mm by using SP mode	
	Paper Weight	52-300 g/m2 *221-300 g/m2 :paper type is limited	g/m2
		14 - 80 lbs *221-300 g/m2 :paper type is limited	lbs
	Paper Output Capacity	250 sheets (A4 / 8 ½"x11" or smaller, less than 80gms) 125 sheets (B4 / 8 ½"x14" or larger, less than 80gms)	
	Power Consumption	Max 10W (Power is supplied from mainframe)	W
	Dimension(WxDxH)	423(W) x 468(D) x 114(H)mm	mm
		16.7" x 18.4" x 4.5"	inch
	Weight	Less than 2kg	kg
		Less than 4.4lbs	lbs.

Side Tray Type C5502			
Side Tray	Paper Size	<output to internal tray> width: 90-305mm length: 148-600mm <output to left side> width: 90-305mm length: 148-432mm	
	Paper Weight	52-300 g/m2	g/m2
		14 - 80 lbs	lbs
	Paper Output Capacity	<output to internal tray> 250 sheets with 80g/m2 paper (A4, LT) 125 sheets with 80g/m2 paper (B4, LG) <output to left side> 125 sheets with 80g/m2 paper	
	Power Consumption	Max 20W (Power is supplied from mainframe)	W
	Dimension(WxDxH)	780(W) x 415(D) x 138(H)mm	mm
		30.7" x 16.3" x 5.4"	inch
	Weight	Less than 4.5kg	kg
		Less than 9.9lbs	lbs.

Envelope Feeder EF3020			
Envelope Feeder	Paper Size	A4, A5, A6, B5, B6, 8 ½ x 11 , $7^{1/4}$ x 10 ½, 5 ½ x 8 ½ , $4^{1/8}$ x 9 ½, $3^{7/8}$ x 7 ½ , C5 Env , C6 Env , DL Env , Com10 Env	
	Paper Weight	52-256	g/m2
		14-68	lbs
	Paper Output Capacity	550 sheets (80g/m2, 20lb. bond)	
	Power Consumption	-	W
	Dimension(WxDxH)	595(W) x 581(D) x 92(H)mm	mm
		23.4" x 22.9" x 3.6"	inch
	Weight	Less than 2.5kg	kg
		Less than 5.5lbs	lbs.

ARDF DF3070				
ARDF	Original Size	Simplex	5 ½"x 8 ½ " LEF/SEF(HLT) – 11"x17"(DLT) / A5 LEF/SEF - A3, B4 - B6 Vertical: 5.1"-11.7" / 128-297mm Horizontal: 5.1"-49.6" / 128-1,260mm (5.1"-17.0" / 128-432mm for copy & scanner function)	
		Duplex	5 ½"x 8 ½ " LEF/SEF – 11"x17" / A5 LEF/SEF - A3	
	Original Weight	Simplex	40-128g/m2	g/m2
			10-34lbs	lbs
		Duplex	52-128g/m2	g/m2
			14-34lbs	lbs
	Stack Capacity		100 sheets with 22lbs / 81.4g/m2 paper or Less than 12mm	
	Power Consumption		Less than 60 W	W
	Dimension(WxDxH)		570(W)x520(D)x135(H)	mm
			22.4"x20.5"x5.3"	inch
	Weight		Less than 12kg	kg
			less than 26.46lbs	lbs.

MFP Supported Environments

OS	Type	PCL5c	PCL6	PostScript3	XPS
Windows 2000	Professional	N	N	N	N
	Server	N	N	N	N
	Advanced Server	N	N	N	N
	Datacenter Server	N	N	N	N
Windows XP	Professional	Y	Y	Y	N
	Home Edition	Y	Y	Y	N
Windows Vista	Starter	N	N	N	N
	Home Basic	Y	Y	Y	Y
	Home Premium	Y	Y	Y	Y
	Business	Y	Y	Y	Y
	Ultimate	Y	Y	Y	Y
	Enterprise	Y	Y	Y	Y
Windows 7	Starter	N	N	N	N
	Home Basic	N	N	N	N
	Home Premium	Y	Y	Y	Y
	Professional	Y	Y	Y	Y
	Ultimate	Y	Y	Y	Y
	Enterprise	Y	Y	Y	Y
Windows Server 2003	Standard Edition	Y	Y	Y	N
	Enterprise Edition	Y	Y	Y	N
	Datacenter Edition	N	N	N	N
	Web Edition	N	N	N	N
Windows Server 2008	Standard Edition	Y	Y	Y	Y
	Enterprise Edition	Y	Y	Y	Y
	Datacenter Edition	N	N	N	N
	Web Edition	N	N	N	N
Windows Server 2008R2	Standard Edition	Y	Y	Y	Y
	Enterprise Edition	Y	Y	Y	Y
	Datacenter Edition	N	N	N	N
	Web Edition	N	N	N	N

*RPCS driver has been discontinued.

Point & Print

Windows OS		Drivers		
Server	**Client(Push to)**	**PCL5c/6**	**PS**	**XPS**
Windows Server 2003	7	Y	Y	N
	Vista	Y	Y	N
	XP	Y	Y	N
	W2K Pro	N	N	N
Windows Server 2008	7	Y	Y	Y
	Vista	Y	Y	Y
	XP	Y	Y	N
	W2K Pro	N	N	N
Windows Server 2008R2	7	Y	Y	Y
	Vista	Y	Y	Y
	XP	Y	Y	N
	W2K Pro	N	N	N
Windows 2000 Professional	7	N	N	N
Server & Advanced Server	Vista	N	N	N
	XP	N	N	N
	W2K Pro	N	N	N
Windows XP Professional	7	Y	Y	N
	Vista	Y	Y	N
	XP	Y	Y	N
	W2K Pro	N	N	N
Windows Vista	7	Y	Y	Y
	Vista	Y	Y	Y
	XP	Y	Y	N
	W2K Pro	N	N	N

*RPCS driver has been discontinued.

Terminal Service and Citrix MetaFrame

Server	Driver	
	PCL5c/6	PS
Win Server 2008R2	Y	Y
Win Server 2008	Y	Y
Win Server 2003	Y	Y
Win 2000 Server	N	N
Win Server 2003 + MetaFrame	Y	N
Win 2000 Server + MetaFrame	N	N
Win Server 2003 + Citrix PresentationServer4.0	Y	N
Win 2000 Server + Citrix PresentationServer4.0	N	N
Win Server 2003 + Citrix PresentationServer4.5	Y	Y
Win Server 2008 + XenApp5.0	Y	Y
Win Server 2008R2 + XenApp6.0	Y	Y

*RPCS driver has been discontinued.

*XPS driver is not supported in the environment of terminal service and Citrix MetaFrame.

*Even "Yes" is put in the cell, there is a case driver is not supported under the combination of FR and Service Pack of Meta Frame.

*Following combinations of operating system and Citrix MetaFrame are supported.

Windows 2003 Server

1. Windows Terminal Service (RDP protocol)
2. Citrix PresentationServer4.5

Windows 2008 Server

1. Windows Terminal Service (RDP protocol)
2. Citrix XenApp5.0

Windows 2008R2 Server

1. Windows Terminal Service (RDP protocol)
2. Citrix XenApp6.0

Mac OS Environment

	PostScript3	Printer Utility for Mac
Mac OS 8.6 or later, Mac OS X classic	N	N
Mac OS X Native: v.10.2 or later*1	Y	N

*1: Mac OS X v10.0.x and v.10.1.x are not supported.

UNIX Environment

Supported platforms for Unix filter

UNIX Platforms	Version
Sun Solaris	2.6/7/8/9/10
HP-UX	10.x/11.x/11i v2/11i v3
Red Hat Linux	Enterprise 4, 5, 6
SCO OpenServer	5.0.6/5.0.7/6.0
IBM AIX	5L Version /5.3, 6.1, 7.1

Novell Netware

Netware Server*	Supported Version	Netware 6.5
	Client OS	Windows XP professional/Vista/2008/7

* Netware option is required.

SAP R/3 Environment (Device Type / Barcode & OCR Package)

Device Type will be provided from SAP itself in SAP Printer Vendor Program.

For the detailed specification, please refer to another announcement to be issued in the future.

Supported Barcode & OCR Fonts	Barcode Fonts	Code 128, Code 39, Code 93, Codabar, 2 of 5 interleaved/Industrial/Matrix, MSI, USPS, UPC/EAN
	OCR Fonts	OCR A, OCR B

Utility Software

Software	Description
For GW Controller Font Manager	This software enables you to use screen fonts.
Smart Device Monitor for Admin	This software enables you to manage and monitor printers and other devices over the network.
DeskTopBinder – SmartDeviceMonitor for Client	This software enables you to access networked printers to print, monitor or to receive notifications. With DeskTopBinder Lite you can connect client computers to I/O devices enabling you to efficiently manage data.
Device Graphic Update Module	Device Graphic Update Module provides bitmap images used to represent the various statuses of devices graphically within Smart Device Monitor or Web Smart Device Monitor. Available on website.
Printer Utility for Mac	This is a utility for Macintosh that provides access to several network printing administrative features.
PS Descriptions	PPD for Mac By interacting with the Adobe PostScript 3 controller in the device, this PPD is able to produce an accurate representation of the screen image.
Mac OS X PPD Installer	This PPD installer is used to install a PPD (Postscript Printer Description) file on Mac OSX. PPD files contain descriptions of printer capabilities such as paper sizes, number of input trays and duplexing. Once the PPD file is installed on the system using the PPD installer, the PS driver that comes bundled with Mac OS X can use the information in the PPD to control the print device and enable full functionality. It supports the Mac OS X 10.1 or later. Please see the Readme file for information about compatibility with versions of Mac OS X.
LAN FAX Driver M10	This software enables you to fax documents directly from your computer. The Address Book Editor and Cover Sheet Editor are installed as well. This software requires the optional fax unit to be installed on the machine. M10 Driver
PCL 6 Driver	Printer driver for B/W printing in Windows. It supports HP PCL XL commands and is optimized for the Windows GDI. High performance printing can be expected.
PCL 5e Driver	Printer driver for printing in Windows. It supports HP PCL 5e commands.
DDST Print Driver PCL5e	Printer driver for Windows: The user-friendly DDST driver rasterizes print-data on the Windows host that is submitting the job. Data is submitted to the printer as PCL. This driver is only intended for use with DDST products that support PCL printing. Note: As this is a mini-driver, less functions are available than the PCL6 driver for DDST. This is downloaded from the web only
DDST Print Driver PCL6	Printer driver for Windows: The user-friendly DDST driver rasterizes print-data on the Windows host that is submitting the job. Data is submitted to the printer as PCL. This driver is only intended for use with DDST products that support PCL printing.
DDST TWAIN Driver	TWAIN scanner driver for network connections or USB.
Post Script Driver	By interacting with the Adobe PostScript 3 controller in the device, this driver is able to produce an accurate representation of the screen image.
GW Controller Network TWAIN Driver	TWAIN scanner driver for network connections with new features Combine/Series, compatible with SNMP V3and Network Connection Tool.

Subject to change without notice

Print Driver Information

Printer Driver Features

Features	PCL5c/6	PostScript3		XPS
		Windows XP/Vista/7	Mac OS X v.10.2 or later	
Send to job Binding	N	N	N	N
Send to Document Server	Y	Y	Y	Y
Sample Print	Y	Y	Y	Y
Locked Print	Y	Y	Y	Y
Hold Print	Y	Y	Y	Y
Scheduled Print	Y*1	Y	Y*2	N
Stored Print	Y	Y	Y	Y
Stored Print(Shared)	Y	N	N	N
Store and Print	Y	Y	Y	Y
Store and Print(Shared)	Y	N	N	N
Reduce/Enlarge(Zoom/Scaling)	Y*3	Y	Y	Y
Reduce/Enlarge Centering	N	N	N	N
Fit to Paper Size	Y	Y	Y	N
Unauthorized Copy Control	Y*1	Y	Y	N
Layout(N-up, Page per sheet)	Y	Y	Y	Y
Poster	N	N	N	N
Duplex	Y	Y	Y	Y
Booklet1	N	N	N	N
Booklet2(Magazine)	Y	Y	Y	Y
Non-Reduction Booklet	Y	N	N	N
Layout + Booklet	Y*1	Y	Y	N
Watermark	Y	Y	Y	N
Overlay	N	N	N	N
Header/Footer	N	N	N	N
Adjust Image Position	N	N	N	N
Binding Margins	N	N	N	N
Collate	Y	Y	Y	Y
Punch	Y	Y	Y	Y
Staple	Y	Y	Y	Y
Cover Sheet(Front Cover)	Y	N	N	N
Front and Back Cover	Y	N	N	N
Slip Sheet	Y	N	N	Y

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Banner Page Print	Y	Y	Y	N
Chaptering	Y	N	N	N
Rotate by 180 degrees	Y	Y	Y	Y
Reverse Order Print	N	Y	N	Y
Do not print Blank Pages	PCL5 : Y*4 PCL6 : N	N	N	N
Dithering	Y	Y	Y	N
Toner Saving	N	Y	Y	Y*5
Black Over Print	Y	Y	Y	N
Gray Reproduction	Y	Y	Y	N
CLP Color Simulation	Y	Y	Y	N
POP Display	N	Y	Y	N
Print Priority Setting :Quality	N	N	N	N
Print Priority Setting :Speed	N	N	N	N
Print Priority Setting :High Speed	N	N	N	N
User ID	Y	Y	Y	Y
User Code	Y	Y	Y	Y
User Authentication	Y	N	N	N
Encryption/Encoding	Y	N	N	N
Mirror image Print	N	Y	N	N
Negative Image Print	N	N	N	N
Edge to Edge Print	Y	Y	Y	N
Limitation Setting	PCL5 : Y PCL6 : N	N	N	N
Classification Code	Y	N	N	N

*RPCS driver has been discontinued.

*1: This function is not supported for PCL5c driver.

*2: This function is available on Mac OS 10.5 or later.

*3: "Centering" feature cannot be selected from PCL driver. However PCL has this feature as the original function.
When printing with Reduce/Enlarge(Zoom) feature of PCL driver, the output will be automatically centered by the PCL's original centering function.

*4: This feature cannot be set from printer driver but is set "On" at "PCL setting" of MFP.

*5: This function is available only when "Black and White" is selected.

Counters

- User Tools / Counter → Counter → OK →Print → Start
- User Tools / Counter → Arrow Down → System Settings → OK→ Arrow up until Administrator Tools → OK→Arrow up until Display / Print Counter → OK → Print → Start
- Maximum 9 digits

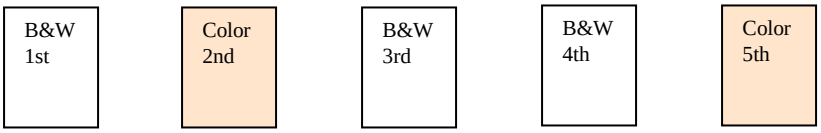
Subject to change without notice

Auto Color Selection (ACS)

The following is the same as the ACS mechanism on the previous model.

In B&W mode, B&W pages printed after a color page is counted as black and white. In ACS mode, these pages are counted as color mixed pages.

By default, once the ITB (image transfer belt) unit has moved into contact with all the color drums to print a color page, it remains in this position throughout the end of the job, even if there are B&W pages following the color page. For example, when sending 10 copies of 5 originals as one job and only the second page contains color data, the ITB unit moves into contact with all the color drums just before printing the second page. It then remains in contact with the drums until all 50 pages have been printed out.



In this example, the counters would then increment as shown in the table below.

SP Number	Counter	Counter Value
SP8-581-004	D: Color	6
SP8-581-005	D: B&W	5
SP8-581-006	C: Color	2
SP8-581-007	C: B&W	3

D: Developments (Color = CMY drums, B&W = Bk drum)
C: Copies

The counters count up in the manner explained above, in order to accurately reflect the number of color and B&W outputs made. This means that when printing B&W pages after a color page has been printed, the color counters do not count up (even when the color drums and development units rotate). So the usage of the various drums is not reflected accurately.
On this model, there is an SP mode (Sp2-907-001: ACS Setting) which makes it possible to move the ITB back to the default position, separated from the four drums, in the middle of a job. The default is 0, which produces the same result as with previous products which use ACS, i.e. once the ITB contacts the four drums to print a color page, it does not separate from the drums until job end. All other values of this SP set the number of Bk sheets that need to pass the ITB consecutively for the ITB to return to default position. For example, with a setting of 3, the ITB will separate from the drums after three consecutive Bk sheets are printed (at that time, in the middle of the job). Changing the position of the ITB takes a few seconds and increases the wear on the drums.

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Paper

Recommended Throughput Material

TBA

Non Recommended Throughput Material

Refer to pages in the Operators Instructions Hardware Guide.

Do not use any of the following kinds of paper or a fault might occur:

- Aluminum Foil, Carbon paper,
- Conductive paper
- Paper meant for an inkjet printer
- Bent, folded, or creased paper
- Torn paper
- Thermal fax paper
- Art paper
- Paper with perforated lines
- Hemmed-edge paper
- Tab stock
- Slippery paper
- Perforated paper
- Rough paper
- Thin paper with little stiffness
- Paper with a dusty surface

Special Paper

Not Applicable

Firmware Information

Firmware (File Names TBA)

Firmware SD Card	
browser	Browser option Type E
Data Erase Std	Data Erase Std
Engine	Engine
Language Install	Language
MediaPrint	MediaPrint
Network DocBox	Network DocBox
Network Support	Network Support
OpePanel.EXP	LCDC
PCL	PCL
Printer	Printer
RPCS	RPCS
PowerSaver	Power Saving Subsystem
Scanner	Scanner
System/Copy	System/Copy
Web Support	Web Support
Web Uapl	Web Uapl

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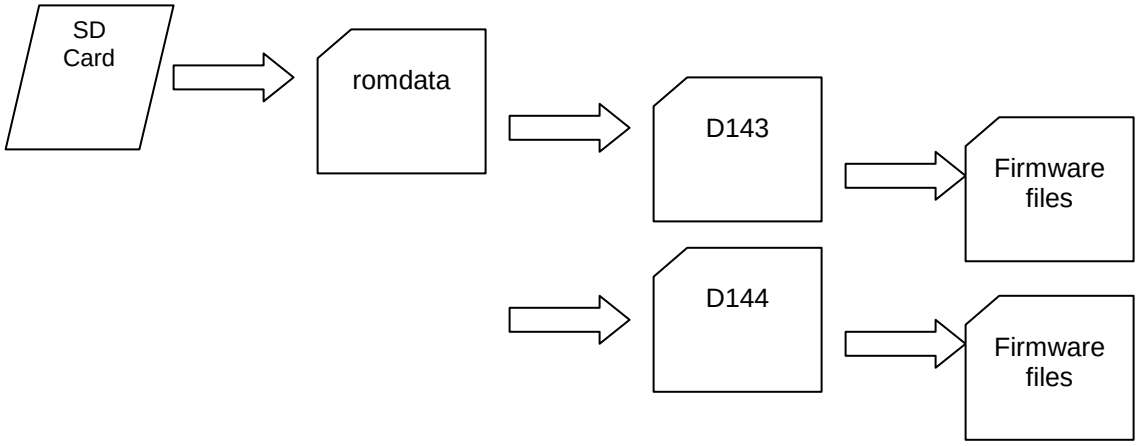
SD Card Arrangement



Contact Information

Name	Contact
Technical Services Call Center (Hotline)	Ricoh: (800) 537-4264 Savin: (800) 291-6044 Lanier: (800) 333-3147
Application Help Desk (Software Issues)	Ricoh Phone Card: 2 Call - 000781MIU, 5 Call - 000900MIU Savin Phone Card: 2 Call - 12992, 5 Call - 12993
Hytec Parts and Logistics Control	(800) 557-4264 http://www.nrc-usa.com
Technology Solutions Resource Center	http://www.tscweb.net
Headquarter Web Sites	Ricoh Corporation: http://www.ricoh-usa.com Savin Corporation: http://www.savin.com Lanier Corporation: http://www.lanier.com
Material Safety Data Sheets	(800) 336-MSDS (6737)
Ricoh University	973.882.2200. http://www.ricohuniversity.com

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Training Information

Description	EDP Code	RFG E-Source Number
D142/D144 Series Self-Paced Training Package	TBD	TBD
D142/D144 Service Manual	TBD	TBD
D142/D144 Parts Catalog	TBD	TBD
D142/D144 Point-to-Point	TBD	TBD

Please refer to the http://www.ricohuniversity.com/ web site for the most up to date training information.
Please be aware that once a model or series is out of production, the Field Service Manual, Technical Service Bulletins and Ricoh University should be referenced for the most current information. Check the TSC website and e-source.

MFP Update Certified Service Personnel

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Revisions

1.0 Original

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